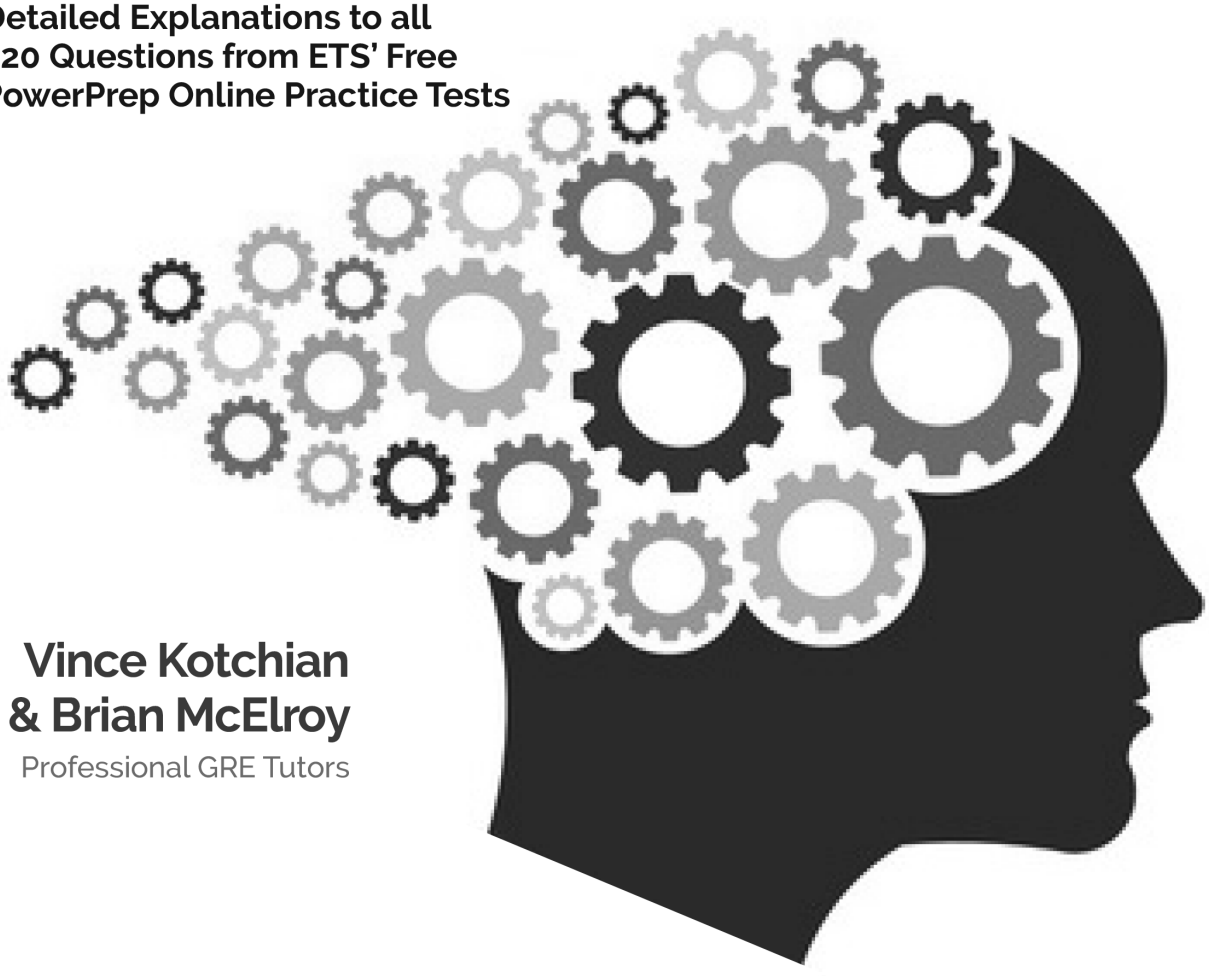
Vince & Brian's

GRE PowerPrep Explanations

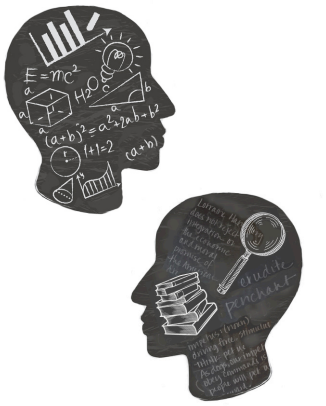
- Real GRE questions
- Builds critical thinking, reading, vocabulary, and mathematics skills
- Clear, concise, direct, and simple advice
- Handwritten math solutions and full analyses of every answer choice

Detailed Explanations to all 320 Questions from ETS' Free PowerPrep Online Practice Tests



Vince Kotchian & Brian McElroy

Professional GRE Tutors



Please note: the GRE questions within are the sole property of ETS, the maker of the GRE, and are included under the provisions of the United States Fair Use Doctrine (educational purposes / scholarship / accessibility).

You can find the Free GRE Powerprep software at https://www.ets.org/gre/revised_general/prepare/powerprep2

Book design by Kelly Badeau

ISBN 978-1-9842-7279-9

Vince & Brian's GRE PowerPrep Explanations

Table of Contents

Vince & Brian's GRE PowerPrep Explanations

Detailed Explanations to all 320 Questions from ETS' Free PowerPrep Online Practice Tests

Who are we? We are professional GRE tutors based in San Diego, California. Combined, we have over 25 years experience teaching and tutoring students for this exam.

Why did we write this guide? We wrote this guide because, like most experienced GRE tutors, we believe in using real GRE questions whenever possible. However, although ETS (the maker of the GRE) provides two free computer-based practice GREs, it does not provide any answer explanations for the PowerPrep CAT (computer adaptive test) questions! Even the answer explanations that ETS does provide in the Official Guides are often noticeably lacking and/or difficult to comprehend for the average student.

The explanations within this book are meant not only to make the answers clear, but also to help you build (slowly, and over time) the type of critical thinking, reading, vocabulary and mathematics skills that you will need to succeed on the GRE. In our explanations, we aim to be **clear**, **concise**, **direct**, and **simple**, and we always welcome suggestions for improvements.

Please also read Brian's detailed ***Guide to Navigating the GRE Powerprep Online Practice Tests***.

Good luck with your GRE prep, and please contact us with any comments or questions!

— Vince Kotchian and Brian McElroy, professional GRE tutors, San Diego CA

Vince Kotchian:
Email: vince@vincekotchian.com
Phone: 760.542.8395
Web: www.vincekotchian.com

Brian McElroy:
Email: mcelroy@post.harvard.edu
Phone: 866.584.8886
Web: www.mcelroytutoring.com

Introduction

When preparing for the GRE, one must remember to use official materials (materials written by ETS, the maker of the GRE) whenever possible. Third-party strategy and learning guides certainly have a place in the GRE prep process, but far too many students waste their GRE preparation time by using non-official test questions from companies such as Kaplan, which are often far different than the real thing--particularly with regard to GRE Verbal Questions, where it is difficult, if not impossible, for 3rd-party questions to fully replicate the wording, tendencies, and "feel" of official ETS questions.

Here are all of the **GRE official materials from ETS** currently available:

1) **PowerPrep Online (Free):** 2 free computer-adaptive tests (CATs) containing 160 real GRE questions per test (320 total), along with a Test Preview Tool (18 additional questions and 2 more essay questions). ***Note: The PowerPrep Online GRE tests include the exact same 320 questions as the questions from this book.***
2) **Powerprep Plus Online** ($40 per test with 90 days of access): 2 more CATs ($40 each with 90 days of access) that you can only take once per purchase. 80 real GRE questions per test, and 320 real GRE questions total, along with a Test Preview Tool (18 additional questions and 2 more essay questions).
3) **Paper-Based GRE Practice Test** (old version): Beware: only 22 questions on the old paper-based test are unique: the other 78 questions overlap with the free PowerPrep Online test #1. Do not take these paper-based tests until after you take the PowerPrep online tests, or your diagnostic scores on the CATs might be less realistic due to question repetition.
4) **Paper-Based GRE Practice Test** (new version): Beware: only 37 questions on the old paper-based test are unique: the other 53 questions overlap with the free PowerPrep Online test #2. Do not take these paper-based tests until after you take the PowerPrep online tests, or your diagnostic score might be less realistic due to question repetition.
5) **The Official Guide to the GRE General Test, 3rd Edition**: 296 real GRE practice questions, including 57 additional math exercises.
6) **Official GRE Quantitative Reasoning Practice Questions, Second Edition, Volume 1**: 150 additional GRE Quant practice problems, along with answer explanations / test info.
7) **Official GRE Verbal Reasoning Practice Questions, Second Edition, Volume 1**: 150 GRE Verbal practice problems, along with answer explanations and information on the test.

8) **The Official GRE Super Power Pack** (includes books #5, 6 and 7 in one bundle, sometimes at a lower price than the individual books).
9) **The Official GRE Value Combo** (includes books #6 and 7 in one bundle, sometimes at a lower price than the individual books).

If you add up all the unique questions in these official resources, it totals about 1,300 official questions, which for many students is more than sufficient for a full GRE preparation. However, many students need more learning, strategy and practice than the official materials can provide. With that in mind, here are some additional 3rd-party GRE strategy and learning guides that we can recommend:

1) **Manhattan Prep 5-Lb Book of GRE Practice Problems**
2) **Manhattan Prep GRE Set of 8 Strategy Guides**
3) **GRE Prep by Magoosh**
4) **Barron's GRE, 22nd Edition**
5) **McGraw-Hill Education GRE 2018**
6) **Cliff's Notes Math Review for Standardized Tests, 3rd Edition**
7) **GRE Vocab Capacity *(disclaimer: also written by us)***

You might also want to consider purchasing the Manhattan Prep GRE CATs, which do not include real GRE questions, but are still (mostly) realistic and make for good practice if you need more than four CATs. The first exam is free, and you can buy six more for $39.

We do NOT recommend Kaplan or Princeton Review books, which are decent for mid-level scorers, but too simplistic for the student who aspires to high GRE scores.

GRE Study Plan

How to Study for the GRE

There is no one "right way" to study for the GRE. Some students prefer to jump in head-first and take a diagnostic practice test right away. Others are much more cautious, wanting to learn the topics well before taking an exam under test-day conditions.

In general, we would make a few suggestions:

1) **Study frequently and for short durations.** We suggest studying three times a day for 50 minutes each, or two times a day for 75 minutes each. Spend most of your time trying practice problems (active), not just reading or watching videos (passive). If possible, check the correct answer / answer explanation to each question right away for optimum learning — learning is best done when your thoughts are still fresh.

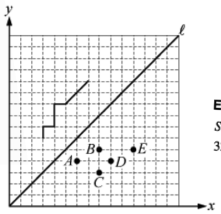
2) **When you get something wrong, it's a precious opportunity to improve.** Don't rush it! Avoid the temptation to just check the correct answer, and move on. Instead, force yourself to evaluate all the answer choices, and to try the questions again from scratch, as many times as needed, until you've mastered them. Check the correct answer only after you've tried the question again. Repeat this process as many times as possible until you've mastered the material.
3) **Don't take too many full practice tests, and don't always practice with time pressure** — you need to learn how to crawl before you can learn how to walk.
4) **Try to use real GRE questions whenever possible, but be willing to use 3rd-party materials if you need extra practice in a specific area.**
5) **On Quant, be willing to go back to the basics if necessary, by drilling certain math concepts over and over until you are more confident.** The Cliff's Notes Math Review for Standardized Tests book is helpful in this regard. Many math questions on the GRE quant section can be solved easily through a strong grasp of math theory and number properties.
6) **Improve your vocabulary.** Vocab is very important on the Verbal section of the GRE. In addition to this book, you may have heard (also mentioned above) that we have co-written a popular GRE Vocab Book, GRE Vocab Capacity.
7) **Don't give up.** Most people have to take the GRE several times before they reach their desired score, and the GRE ScoreSelect policy allows test-takers to hide any GRE scores that they don't want their potential grad programs to see.
8) **If you're taking periodic full GRE practice tests as part of your practice regimen, then good job!** But don't bother trying to review your results afterward. Instead, wait until the next day, when your mind is fresher, to review your results. Remember, it's the careful, deliberate and untimed review of each question you got wrong that leads to actual improvement, not just the act of taking the practice test itself. Force yourself to retry each question, even if the correct answer "already makes sense"...especially on Quant. For Verbal, focus on writing down **why all the wrong answers are wrong,** not just why the right answer is right.

Vince and Brian's GRE PowerPrep 2 Explanations TEST 1

Easy Explanations for Mere Mortals

#12 $\frac{1}{2^{10}} = \frac{1}{4^5} = \frac{1}{4 \cdot 4 \cdot 4 \cdot 4 \cdot 4}$ = USE CALC.

$\frac{1}{1,024} = .00097 < .001$? yes. thus, [A]

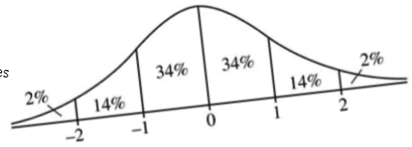


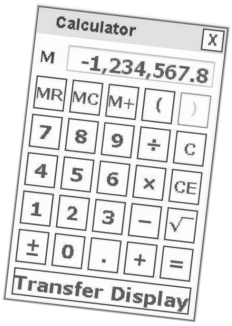
20) The quantities S and T are positive and are related by the equation $S = k/T$, where k is a constant. If the value of S increases by 50 percent, then the value of T decreases by what percent?

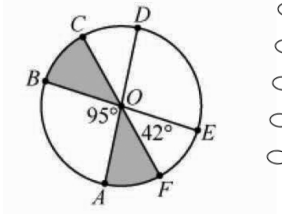
A) 25%
B) 33 and ⅓ %
C) 50%
D) 66 and ⅔ %
E) 75%

Explanation: Obviously, don't just assume that the answer is C. Test it.
$S = k/T$. *Make it true.* $5 = 15/3$. *so* $k = 15$. $1.5\,(5) = 15/x$, $7.5x = 15$, $x = 2$. *X went from 3 to 2 which is a 33% decrease.* % *change* = (*difference/original*) $x\ 100 = ((3-2)/3)\,x\ 100 = (1/3)\,x\,(100) = 33\%$

The quantities S and T are positive and are related by the equation $S = \frac{k}{T}$, where k is a constant. If the value of S increases by 50 percent, then the value of T decreases by what percent?







- ○ 25%
- ○ $33\frac{1}{3}\%$
- ○ 50%
- ○ $66\frac{2}{3}\%$
- ○ 75%

10, 10, 10, 10, 8, 8, 8, 8, 12, 12, 11, y

The twelve numbers shown represent the ages, in years, of the twelve houses on a certain city block. What is the median age, in years, of the twelve houses on the block?

[ ] years

4) There has been much hand-wringing about how unprepared American students are for college. Graff reverses this perspective, suggesting that colleges are unprepared for students. In his analysis, the university culture is largely (i) _____ entering students because academic culture fails to make connections to the kinds of arguments and cultural references that students grasp. Understandably, many students view academic life as (ii) _____ ritual.

A. primed[8] for
B. opaque[10] to
C. essential for
D. an arcane[9]
E. a laudable[11]
F. a painstaking[12]

Explanation: Blank (i) is explained by the rest of the sentence it's in. It makes sense that the culture is unclear, or opaque (**Choice B**) to students "because academic culture fails to make connections" to the things "students grasp". The last sentence continues this sentiment, so **Choice D** works for Blank (ii); "an arcane" ritual would be one students find hard to understand.

Dramatic literature often _____ the history of a culture in that it takes as its subject matter the important events that have shaped and guided the culture.

confounds
repudiates
recapitulates
anticipates
polarizes

PowerPrep Test 1

Verbal

1) Dramatic literature often _____ the history of a culture in that it takes as its subject matter the important events that have shaped and guided the culture.

A. confounds[1]
B. repudiates[2]
C. recapitulates[3]
D. anticipates
E. polarizes[4]

EXPLANATION: The expression "in that" indicates that an explanation is coming. So "it takes as its subject matter the important events" of a culture is an explanation for what "dramatic literature" is doing in the first part of the sentence. **CHOICE C**, "recapitulates," is a good fit, since "recapitulates" means "to recap," or "to summarize the main points of."

CHOICE A: To "confound" is to confuse or mix up, which doesn't make sense here and is unrelated to the information provided.

CHOICE B: To "repudiate" is to reject, which is clearly the opposite of what is being referenced ("takes as its subject matter…").

CHOICE C: To "recapitulate" is to summarize, which works well here, if not perfectly.

CHOICE D: To "anticipate" is to know in advance and adjust accordingly — not what's being referenced.

CHOICE E: To "polarize" is to move to the extremes — again, not relevant to the specifics provided by the sentence.

---

[1] **confound** (verb): to confuse (a person) or mix up (a thing), or as an exclamation ("confounded" only). "kun FOUND"
Think: **can't find.** I **can't find** my keys anywhere and I'm **confounded** as to where they may be. Where the heck are my **confounded** keys?

[2] **repudiate** (verb): to refuse or accept; to reject. "ruh PYOO dee ate"
Think: **refuse poo I ate**. If I were to eat poo, then my stomach would **refuse** the **poo I ate** and **repudiate** it by vomiting uncontrollably.

[3] **recapitulate** (verb): to summarize. "Ree kuh PIT you late"
Think: **recap.** His **recap** of the news **recapitulated** the day's events.

[4] **polarize** (verb): to separate into two conflicting or opposite positions. "POH lurr eyes" Think: Earth's **poles**. Democrats and Republicans are so **polarized** that I'm surprised they don't stay at the North and South **poles** to keep as far apart as they can.

2) Since she believed him to be both candid and trustworthy, she refused to consider the possibility that his statement had been _____.

A. irrelevant
B. facetious[5]
C. mistaken
D. critical
E. insincere

EXPLANATION: This is a classic contrast set-up: "Since she believed him to be candid and trustworthy," what would she then refuse to consider about him? The opposite of "candid and trustworthy."

CHOICE A: Truthfulness is not directly related to whether or not something is relevant (relevant = related to the topic).

CHOICE B: "Facetious" means sarcastic, and hence is a very tempting choice because of its similarity to the topic at hand (truth). I wouldn't eliminate it, but I don't love it because it's not a perfect fit. Truthful people can still be sarcastic, and vice-versa, because *sarcasm* (lying obviously and intentionally for effect) is not the same as deception (trying to fool or trick someone).

CHOICE C: Again, there is no direct relationship between the answer and the details provided ("mistaken" = wrong). You can be mistaken with or without being trustworthy.

CHOICE D: You can be "critical" with or without being truthful.

CHOICE E: Yes, correct. You cannot be candid unless you are also truthful. ***Insincere*** is very close to "facetious," but because "insincere" is less related to *joking around* as is facetious, it makes for a slightly better choice here.

I've had plenty of students make strong arguments for **CHOICE B**, and I can't blame them, but there is no denying that **CHOICE E** is also a great choice. The secret is understanding what ETS is looking for, which is not only accuracy, but the general connotation of words. It's a tough one for sure.

The correct answer is **Choice E.**

---

[5] **facetious** (adjective): sarcastic. "fuh SEE shus" Think: **"E" face**. The **facetious** comedian made us smile so much that our **faces** looked like we were constantly saying "**E**." (Try it!)

3) Given how (i) _____ the shortcomings of the standard economic model are in its portrayals of human behavior, the failure of many economists to respond to them is astonishing. They continue to fill the journals with yet more proofs of yet more (ii) _____ theorems. Others, by contrast, accept the criticisms as a challenge, seeking to expand the basic model to embrace a wider range of things people do.

	Blank (i)	**Blank (ii)**
A.	overlooked	D. comprehensive
B.	occasional	E. improbable
C.	patent[6]	F. pervasive[7]

EXPLANATION: Reading this question for the overall story reveals a NEGATIVE attitude about the economists, which is contrasted with a more positive attitude toward the "others" in the last sentence. Blank (i) is explained by the second part of the first sentence: if the failure of economists to respond is "astonishing," then **CHOICE C**, "patent," (whose secondary definition means "obvious") makes sense because not responding to something obvious could logically be "astonishing," as opposed to Choices A and B, which are not strong enough to support that conclusion. Since the tone of the first two sentences is negative, **CHOICE E**, "improbable" (meaning "unlikely"), is a good fit for blank (ii). Further confirmation that the second sentence needs to mean something negative is given by the last sentence, which has a shift to a positive attitude. Choice F, "pervasive" (meaning "extensive") is tempting, because it is normally used in a negative way ("we have a pervasive termite problem"), but we are looking for a word that conveys an idea of wasting one's time on frivolous pursuits, as opposed to addressing the shortcomings of the standard (i.e, pervasive) economic model, so this does not make sense.

---

[6] **patent** (adjective): obvious, apparent. "PAH tint" Think: **pa's tent**. Grand**pa**, an experienced camper through and through, came up with a **patent** solution to the sudden rainshowers: he kept dry in **pa's tent**.

[7] **pervasive** (adjective): prevalent, extensive, widespread, especially in a negative way. "purr VAY sive" Think: **purr + evasive.** Unfortunately, worms are a **pervasive** problem for many cats (**purr**), who must take **evasive** action to avoid contracting them.

4) There has been much hand-wringing about how unprepared American students are for college. Graff reverses this perspective, suggesting that colleges are unprepared for students. In his analysis, the university culture is largely (i) _____ entering students because academic culture fails to make connections to the kinds of arguments and cultural references that students grasp. Understandably, many students view academic life as (ii) _____ ritual.

Blank (i)	**Blank (ii)**
A. primed[8] for	D. an arcane[9]
B. opaque[10] to	E. a laudable[11]
C. essential for	F. a painstaking[12]

EXPLANATION: Blank (i) is explained by the rest of the first sentence. It makes sense that the culture is unclear, or "opaque" (**CHOICE B**) to students "because academic culture fails to make connections" to the things "students grasp." The last sentence continues this sentiment, so **CHOICE D**, "arcane," works for blank (ii); "an arcane" ritual would be one students find hard to understand.

CHOICE A: "Primed for" (ready for) is the opposite of what we want for this blank, since the sentence is telling us that universities are unready for students.

CHOICE C: "Essential for" doesn't make sense because we are given no evidence suggesting that entering students need university culture.

CHOICE E: "Laudable" means praiseworthy, and there is no evidence indicating that students find academic life to be worthy of praise.

CHOICE F: "Painstaking" is a common wrong answer for blank (ii) — this is often due to students conflating its meaning (it means "extremely careful") with the meaning of "painful." But even "painful" wouldn't be supported by the text, since the clue is about students' failure to understand academic culture.

---

[8] **primed** (adjective): ready. "PRYMED" Think: **primed for prime time**. When a television news anchor has paid her dues, you might say that she's **primed for prime time**.

[9] **arcane** (adjective): mysterious; known only to a few. "are KANE" Think: **Ark of the Covenant**. Indiana Jones understood the **arcane Ark of the Covenant**; the Nazis did not, which is why they perished.

[10] **opaque** (adjective): something that is cloudy, blurry, or difficult to understand. "oh PAKE" Think: an **opaque lake**. If you don't want to get sick, then I don't recommend swimming in an **opaque lake**.

[11] **laudable** (adjective) praiseworthy "LODD uh bull." Think: **applaudable**. Something that's **laudable** is **applaudable**.

[12] **painstaking** (adjective): very careful. "PAINS taking" Think: **taking pains**. As a doctor, **taking pains** to not infect the patient means using **painstaking** technique when washing one's hands before surgery.

5) The narratives that vanquished[13] peoples have created of their defeat have, according to Schivelbusch, fallen into several identifiable types. In one of these, the vanquished manage to (i) _____ the victor's triumph as the result of some spurious[14] advantage, the victors being truly inferior where it counts. Often the winners (ii) _____ this interpretation, worrying about the cultural or moral costs of their triumph and so giving some credence[15] to the losers' story.

	Blank (i)	**Blank (ii)**
A.	construe	D. take issue with
B.	anoint	E. disregard
C.	acknowledge	F. collude in

EXPLANATION: The first sentence is helpful to get the big picture: vanquished peoples are "creating" narratives. This helps clarify that blank (i) should be "construe" (**CHOICE A**), since "construe" means to understand in a particular way. The clue for blank (ii) comes at the end of the last sentence: "and so giving some credence to the losers' story" makes it clear that the victors are agreeing with the losers' interpretation. Therefore, **CHOICE F**, "collude in," is correct, because it means "to go along with."

CHOICE B: "To anoint" means to announce that something or someone is great. Since we are told that the vanquished find the victors to be "inferior," this is a faulty conclusion.

CHOICE C: "To acknowledge" is to give credit for, so this is unlikely, given the vanquished's negative view of the victor.

CHOICE D: "take issue with" is a common phrase that indicates an area of dispute, which is unlikely given the final part of the sentence, which hinges upon agreement ("credence").

CHOICE E: "disregard" doesn't work for the same reason as Choice D.

---

[13] **vanquished** (adjective): defeated. "Van KWISHT"
Think: **van squished**. If a **van squished** the ant crossing the road, then you could say that the ant has been **vanquished.**

[14] **spurious** (adjective): false. "SPUR ee uss"
Think: **spur curious.**
His **spur**-of-the-moment explanation made me **curious** about whether his story was **spurious**.

[15] **credence** (adjective): belief. "KREED ints"
Think: **Creed is.** If you tell me that **Creed is** your favorite band, then I won't give any further **credence** to your musical judgments.

6) The question of (i) _____in photography has lately become nontrivial[16]. Prices for vintage prints (those made by a photographer soon after he or she made the negative) so drastically (ii) _____ in the 1990s that one of those photographs might fetch a hundred times as much as a nonvintage print of the same image. It was perhaps only a matter of time before someone took advantage of the (iii) _____ to peddle newly created "vintage" prints for profit.

Blank (i)	**Blank (ii)**	**Blank (iii)**
A. forgery	D. ballooned	G. discrepancy[17]
B. influence	E. weakened	H. ambiguity[18]
C. style	F. varied	I. duplicity[19]

EXPLANATION: Don't necessarily try to answer the blanks in order—whatever order works best will do. It is only in last line of the text that the quotation marks (indicators of skepticism or specialized terms) around "vintage" let us know that the prints were not in fact vintage at all, which supports **CHOICE A**, "forgery," for blank (i). Line 3 "...might fetch a hundred times as much as a..." tells us that prices of vintage prints have skyrocketed, which supports **CHOICE D**, "ballooned," for blank (ii). Likewise, **CHOICE G**, "discrepancy," works for blank (iii) because it means "a difference or inconsistency" and refers to the large difference in prices between vintage and non-vintage photographs. Beware Choice I, "duplicity." While forging photographs is of course an act of duplicity, the forger is not taking advantage of his *own* duplicity — that would be illogical.

CHOICE B: "Influence" is a rather general word that has to be taken seriously as an answer choice, if only for how general it is. But there isn't any evidence to support choosing this rather easy word.

CHOICE C: "Style" doesn't work much because there isn't any other mention of it in the text.

[16] **nontrivial** (adjective): not unimportant. "Non TRIV ee ul" Think: **trivia.** Most of the questions they ask during **trivia** night at the bar are rather **trivial** if you ask me...but my pop-culture-loving roommate finds them **nontrivial**.

[17] **discrepancy** (noun): a difference, divergence, or disagreement. "Dis KREP in see" Think: **this crepe vs. Nancy's**. There seems to be a large discrepancy between the size **this crepe** of mine and that of **Nancy's**...I wonder whether she took a bite of mine while I wasn't looking.

[18] **ambiguity** (noun): The state of being unclear or ambiguous. "am big YOU it ee" Think: **a big "U" for undecided.** When it came time to indicate her political party on the ballot, Virginia checked neither a big "D" for Democrat, nor a big "R" for Republican, but instead, **a big "U" for undecided**.

[19] **duplicity** (noun): The state of being deceptive or two-faced. "Dew PLISS it ee" Think: **duping Liz.** In summer 1995, actor Hugh Grant thought that he could get away with **duping Liz** Hurley...but then along came Divine Brown, and his **duplicity** was exposed.

CHOICE E: Choosing "weakened" would indicate a misunderstanding of which version of the prints was more expensive.

CHOICE F: "Varied" does not support the idea of one type of print (vintage) would cost much more than a nonvintage print of the same image, and there is no evidence given that would support this relationship being anything but consistent.

CHOICE H: "Ambiguity" means uncertainty, and the idea of uncertainty (not knowing or not being sure) is not supported by the text.

Question 7 is based on this passage:

> "Even after numerous products made with artificial sweeteners became available, sugar consumption per capita continued to rise. Now manufacturers are introducing fat-free versions of various foods that they claim have the taste and texture of the traditional high-fat versions. Even if the manufacturers' claim is true, given that the availability of sugar-free foods did not reduce sugar consumption, it is unlikely that the availability of these fat-free foods will reduce fat consumption."

7) Which of the following, if true, most seriously undermines the argument?

A. Several kinds of fat substitute are available to manufacturers, each of which gives a noticeably different taste and texture to products that contain it.
B. The products made with artificial sweeteners did not taste like the products made with sugar.
C. The foods brought out in sugar-free versions did not generally have reduced levels of fat, but many of the fat-free versions about to be introduced are low in sugar.
D. People who regularly consume products containing artificial sweeteners are more likely than others to consume fat-free foods.
E. Not all foods containing fat can be produced in fat-free versions

EXPLANATION: First, isolate and paraphrase the argument, and what the argument is predicated on. Perhaps you might write, "Since sugar-free didn't work, fat-free won't work." To undermine an argument, look for a choice that introduces new information raising a plausible objection to the argument or its basis. The correct answer, **CHOICE B**, does this by stating that the sugar-free foods didn't taste real. If that's true, then the argument is weakened since the argument uses the failure of sugar-free foods as its basis for arguing that fat-free foods won't work either. In other words, it's possible that the fat-free foods will taste real, so arguing that they'll fail based on what happened with sugar-free foods (that didn't taste real) is a weak argument. Because the argument relies on a comparison/analogy between fat-free and sugar-free foods, an answer choice that points out their differences will serve to weaken the argument.

CHOICE A: This statement is outside the scope of the argument: the fact that there are several different types of fat-free products is irrelevant to the overall effectiveness of fat substitutes.

CHOICE C: This choice might be tempting for some, but all it does is mix up the qualities of the two types of foods being compared. Neither the fat content of sugar-free foods, nor the sugar content of fat-free foods is directly relevant to the effectiveness of these substitutes.

CHOICE D: Similar to Choice C in that it tries to draw connections between the two types of evidence cited, rather than questioning their similarities, which is how one would best undermine this argument.

CHOICE E: Outside the scope of the argument. We are comparing fat-free foods to sugar-free foods in this argument, so who cares that not all foods are capable of being made in fat-free versions?

Questions 8-11 are based on this passage:

Recent studies of sediment in the North Atlantic's deep waters reveal possible cyclical patterns in the history of Earth's climate. The rock fragments in these sediments are too large to have been transported there by ocean currents; they must have reached their present locations by traveling in large icebergs that floated long distances from their point of origin before melting. Geologist Gerard Bond noticed that some of the sediment grains were stained with iron oxide, evidence that they originated in locales where glaciers had overrun outcrops of red sandstone. Bond's detailed analysis of deep-water sediment cores showed changes in the mix of sediment sources over time: the proportion of these red-stained grains fluctuated back and forth from lows of 5 percent to highs of about 17 percent, and these fluctuations occurred in a nearly regular 1,500-year cycle.

Bond hypothesized that the alternating cycles might be evidence of changes in ocean-water circulation and therefore in Earth's climate. He knew that the sources of the red-stained grains were generally closer to the North Pole than were the places yielding a high proportion of "clean" grains. At certain times, apparently, more icebergs from the Arctic Ocean in the far north were traveling south well into the North Atlantic before melting and shedding their sediment.

Ocean waters are constantly moving, and water temperature is both a cause and an effect of this movement. As water cools, it becomes denser and sinks to the ocean's bottom. During some periods, the bottom layer of the world's oceans comes from cold, dense water sinking in the far North Atlantic. This causes the warm surface waters of the Gulf Stream to be pulled northward. Bond realized that during such periods, the influx of these warm surface waters into northern regions could cause a large proportion of the icebergs that bear red grains to melt before traveling very far into the North Atlantic. But sometimes the ocean's dynamic changes, and waters from the Gulf Stream do not travel northward in this way. During these periods, surface waters in the North Atlantic would generally be colder, permitting icebergs bearing red-stained grains to travel farther south in the North Atlantic before melting and depositing their sediment.

The onset of the so-called Little Ice Age (1300-1860), which followed the Medieval Warm Period of the eighth through tenth centuries, may represent the most recent time that the ocean's dynamic changed in this way. If ongoing climate-history studies support Bond's hypothesis of 1,500-year cycles, scientists may establish a major natural rhythm in Earth's temperatures that could then be extrapolated20 into the future. Because the midpoint of the Medieval Warm Period was about AD. 850, an extension of Bond's cycles would place the midpoint of the next warm interval in the twenty-fourth century.

8) According to the passage, which of the following is true of the rock fragments contained in the sediments studied by Bond?[20]

A. The majority of than are composed of red sandstone.
B. They must have reached their present location over 1,500 years ago.
C. They were carried by icebergs to their present location.
D. Most of than were carried to their present location during a warm period in Earth's climatic[21] history.
E. They are unlikely to have been carried to their present location during the Little Ice Age.

EXPLANATION: The second sentence of the passage talks about rock fragments "...(reaching) their present locations by traveling in large icebergs...," so **CHOICE C** is correct. Note that the easiest way to answer this question is by finding the specific part of the passage discussing the keywords "rock fragments" in the question.

CHOICE A: We are told in line 6 that "[sediment grains] originated in locales where glaciers had overrun outcrops of red sandstone," but there is no evidence to conclude that the majority of rock fragments are composed of red sandstone, which is a more specific conclusion.

CHOICE B: The passage refers to "1,500 year cycles" of the proportions of red-stained grains, but not a time limit of at least 1,500 years ago.

CHOICE D: If anything, the opposite is true: it is the cooling of the oceans that leads to icebergs (which carry red-stained grains) traveling farther south than normal, which would likely happen during cool periods in Earth's climatic history. Besides, there is certainly no definitive evidence in the text to conclude that most of them were carried to their present locations during a warm period (similar to "majority" in Choice A).

CHOICE E: The first sentence of the last paragraph indicates that "The onset of the so-called Little Ice Age (1300-1860), which followed the Medieval Warm Period of the eighth through tenth centuries, may represent the most recent time that the ocean's dynamic changed in this way." If we glance upward to the preceding paragraph, we can see that "in this way" refers to the ocean having a higher proportion of red-stained grains. Thus, the opposite is true: they are likely to have been carried to their present location during the Little Ice Age.

---

[20] **extrapolate** (verb) to infer, conclude or draw a conclusion based on another observation or fact. "eks TRAP oh late" Think: **Extra police = late**. Due to the fact that there are **extra police** on the highway today, and traffic is at a standstill, I'm guessing that there was a big accident. Hence, I can **extrapolate** that we are going to be **late** to work.

[21] **climatic** (adjective): pertaining to climate and weather. "Kly MAT ick" Think: **dramatic**. Due to global warming, **climatic** events such as hurricanes and floods have been much more **dramatic** in recent years. (Don't confuse with "climactic," which refers to the climax of a work of art.)

9) In the final paragraph of the passage, the author is concerned primarily with

A. answering a question about Earth's climatic history
B. pointing out a potential flaw in Bond's hypothesis
C. suggesting a new focus for the study of ocean sediments
D. tracing the general history of Earth's climate
E. discussing possible implications[22] of Bond's hypothesis

EXPLANATION: With the first sentence of the last paragraph, the author brings the focus from Bond's hypothesis to our current world. The second sentence, "If ongoing climate-history studies support Bond's hypothesis... scientists may establish a major natural rhythm...that could then be extrapolated into the future." speculates about what scientists could do if Bond's hypothesis is true, which is why **CHOICE E** is correct. The final sentence merely continues this speculation.

CHOICE A: Although a question may seem to be answered in the first sentence of the last paragraph, that sentence merely sets up the speculation in the rest of the paragraph.

CHOICE B: If anything, the final paragraph supports Bond's hypothesis.

CHOICE C: To conclude that the author is suggesting a new focus would be speculation – talking about possibilities does not necessarily mean there's a suggestion involved.

CHOICE D: This is way too broad: the history of Earth's climate as a whole is much bigger than the narrow scope of the passage.

---

[22] **implication** (noun): a conclusion, hint, suggestion, connection or insinuation (not directly stated). "imp lih KAY shun" Think: **implying = suggesting**. When Mike's date told him that she was tired and it was late, **implying** that was that it was time to go home, the **implication** was obvious to everyone but him. "OK, want to get some coffee then?" he asked cluelessly.

10) According to the passage, Bond hypothesized that which of the following circumstances would allow red-stained sediment grains to reach more southerly latitudes?

A. Warm waters being pulled northward from the Gulf Stream
B. Climatic conditions causing icebergs to melt relatively quickly
C. Icebergs containing a higher proportion of Iron oxide than usual
D. The formation of more icebergs than usual in the Far north
E. The presence of cold surface waters in the North Atlantic

EXPLANATION: Searching for the part of the passage discussing "southerly latitudes" leads to the last sentence of the third paragraph, because it also provides reasoning for the southerly travel: "During these periods, surface waters in the North Atlantic would generally be colder, permitting icebergs bearing red-stained grains to travel farther south in the North Atlantic before melting and depositing their sediment." This sentence provides evidence that **CHOICE E** is correct; colder water allowed the grain-carrying icebergs to deposit sediment farther south.

CHOICE A: This is the opposite of what the passage suggests.

CHOICE B: This is the opposite as well.

CHOICE C: No mention is made of icebergs containing more or less iron oxide.

CHOICE D: No mention is made of more icebergs forming – don't draw your own conclusions based on what the passage says about temperatures.

11) It can be inferred from the passage that in sediment cores from the North Atlantic's deep waters, the portions that correspond to the Little Ice Age

A. differ very little in composition from the portions that correspond to the Medieval Warm Period
B. fluctuate significantly in composition between the portions corresponding to the 1300s and the portions corresponding to the 1700s
C. would be likely to contain a proportion of red-stained grains closer to 17 percent than to 5 percent
D. show a much higher proportion of red-stained grains in cores extracted from the far north of the North Atlantic than in cores extracted from further south
E. were formed in part as a result of Gulf Stream waters having been pulled northward

---

EXPLANATION: Logically, the Little Ice Age was a time when surface waters were colder, but there is evidence in the first sentence of the fourth paragraph as well: "The Little Ice Age...may represent the most recent time that the ocean's dynamic changed in this way." The phrase "this way" refers to the end of the third paragraph, which explains that colder waters allowed icebergs to float farther south, so sediments must have been deposited further south during that time. Bond's hypothesis is about the fluctuations in the proportion of red-stained grains, and **CHOICE C** is correct because during those colder periods, more icebergs would have floated into the North Atlantic and the red-stained grains deposited would therefore be at the higher end.

CHOICE A: No mention is made of the icebergs in the Medieval Warm Period, so we shouldn't draw our own conclusions about them.

CHOICE B: Not enough information is given for us to make any conclusions about sediment cores from the 1300s vs. the 1700s.

CHOICE D: This choice seems logical, but we unfortunately don't have enough information to support the northern cores having a higher concentration since the author doesn't talk about icebergs melting in the northern regions.

CHOICE E: This is the opposite of what we need; the point of the passage is that sometimes the Gulf Stream waters don't flow northward, allowing icebergs to float farther south.

Select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.

12) Early critics of Emily Dickinson's poetry mistook for simplemindedness the surface of artlessness[23] that in fact she constructed with such _____.

A. astonishment
B. craft
C. cunning[24]
D. innocence
E. naïveté[25]
F. vexation

EXPLANATION: The sentence creates a contrast between what critics "mistook" as "simplemindedness" (a lack of deep thoughts) and "artlessness" (having no effort or pretentiousness) and what "in fact" was true, i.e., the information provided by the blank. A good prediction for the blank would therefore be the *opposite* of "simplemindedness" and "artlessness," such as "artfulness" or "complexity." Both "craft" and "cunning" mean "cleverness," which fit the bill and create a logical contrast to the critics' mistaken impression of Dickinson's poetry. Thus the correct answers are **CHOICES B** and **C**.

CHOICE A: "Astonishment" (the state of being amazed) is not the opposite of simplemindedness.

CHOICE B: Yes, correct. "Craft" (skill) is the opposite of artlessness (no effort).

CHOICE C: Yes, correct. The word "cunning" (clever forethought, often in a tricky or deceptive way), despite its negative connotation, fits here because Dickinson was in fact being deceptive by disguising her poetry as simpleminded.

CHOICE D: "Innocence" is similar to simplemindedness, but does not fit here because we are looking for an antonym, not a synonym.

CHOICE E: "Vexation[26]" is the state of being frustrated, annoyed or worried, which clearly does not fit here.

---

[23] **artlessness** (noun): having no effort or pretentiousness. "ART less" Think: **artless and heartless**. His flawless, simple, and easy cello-playing technique was at once his greatest strength and his greatest weakness: critics saw how **effortless** it was for him and proclaimed his playing **artless and heartless**.

[24] **cunning** (noun): clever forethought, often in a tricky or deceptive way. "KUN ing" Think: **cunning kung-fu**. In my opinion, the best kind of kung-fu is **cunning kung-fu**, where you seek to defeat your opponent through **deception** instead of just physical skill.

[25] **naïveté** (adjective): lack of experience, wisdom or judgment. "nye eve uh TAY" Think: **Adam and Eve**. Some people take the creation parable of **Adam and Eve** literally, but as a believer in science I attribute that to **naïveté**.

[26] **vexation** (noun): the state of being frustrated, annoyed, or worried. "VEKS ay shun" Think: **ex-nation**. I am filled with **vexation** that if Trump is elected president, the U.S. will soon be known as an **ex-nation**.

13) The macromolecule RNA is common to all living beings, and DNA, which is found in all organisms except some bacteria, is almost as _____.

A. comprehensive
B. fundamental
C. inclusive
D. universal
E. significant
F. ubiquitous[27]

EXPLANATION: The description "common to all" in the first part of the sentence is continued in the second part of the sentence (this continuation is indicated by the word "and"). A good prediction for the blank would be the same phrase — "common to all." **CHOICES D** and **F** are correct — both "universal" and "ubiquitous" mean "everywhere," which creates a very similar meaning to "common to all."

CHOICE A: "Comprehensive" means "covering all aspects of something," which although close to the meaning of what we are looking for, does not quite fit. It also lacks a synonym pair.

CHOICE B: "Fundamental" means "basic and necessary," which again, is quite close to what we are looking for, but is not quite the same as "common to all." It also lacks a synonym pair.

CHOICE C: "Inclusive" means "that which includes others," which yet again is frustratingly close to what we are looking for, but not quite there.

CHOICE D: Yes, "universal" and "common to all" are synonyms.

CHOICE E: "Significant" means "important," which is close but yet again not quite the same as "common to all."

CHOICE F: Yes, "ubiquitous" means "everywhere" and is thus a synonym of "common to all."

PLEASE NOTE: every one of these answer choices is at least close to being correct! It goes to show why you should read all answer choices before making any final decisions about your answer.

[27] **ubiquitous** (adjective): existing everywhere. "ooh BICK wit us" Think: **you big Quidditch. You big Quidditch** fans have made the *Harry Potter* sport **ubiquitious** on college campuses.

14) While in many ways their personalities could not have been more different—she was ebullient[28] where he was glum, relaxed where he was awkward, garrulous[29] where he was _____ —they were surprisingly well suited.

A.	solicitous[30]	D.	laconic[31]
B.	munificent[32]	E.	fastidious[33]
C.	irresolute[34]	F.	taciturn[35]

EXPLANATION: The sentence sets up a series of contrasts between the two described people, so the blank needs to mean the opposite of "garrulous," which means "overly talkative." **CHOICES D** and **F** are correct: both "laconic" and "taciturn" mean "shy," "using few words" or "reluctant to speak."

CHOICE A: A "solicitous" person is one who cares about something or someone, or one who seeks something (think of "NO SOLICITING" signs), and this is not a synonym of shy.

CHOICE B: A "munificent" person is one who is generous (think *muni* = money), which is not a synonym of shy.

CHOICE C: An irresolute person is one who is not determined (resolute = determined), which is not a synonym of shy.

CHOICE D: Yes, "laconic" is a synonym of shy.

CHOICE E: A fastidious person is one who is very attentive to details (think *fast* and *tidy*), which is not a synonym of shy.

CHOICE F: Yes, "taciturn" is a synonym of shy.

---

[28] **ebullient** (adjective): cheerful, bubbly, full of energy. "Eh BOOL ee int" Think: **Red Bull**. After I chugged a giant **Red Bull,** I felt **ebullient**.

[29] **garrulous** (adjective) talkative, chatty, prone to discussing trivial things. "GAH ruh luss" Think: **girls rule us**. The reason **girls rule us** is they have a talent for being **garrulous** and talking us into things we shouldn't do.

[30] **solicitous** (adjective): concerned for. "so LISS it uss" Think: **solely listened to us**. I knew the man was **solicitous** because he **solely listened to us**.

[31] **laconic** (adjective): concise, brief, succinct. "luh KON ick" Think: **lacking kick**. His personality was **lacking kick**; he was so **laconic** that he barely said hello.

[32] **munificent** (adjective): generous. "MOON if uh sint" Think: **money sent**. The **money sent** to us by our grandparents every year makes them **munificent**.

[33] **fastidious** (adjective): strong attention to detail, having very picky standards. Think: **fast to tidy up**. My roommate is **fastidious** about cleaning; she gets mad if I am not **fast to tidy up**.

[34] **irresolute** (adjective): not firm or determined, **not resolute**. **resolute** (adjective): firmly determined. Think: **resolution**. It's no use to make a New Year's **resolution** if you're not **resolute** enough to follow through with it.

[35] **taciturn** (adjective): reluctant to speak, not talkative. Think: **takes his turn**. If she's passive and taciturn at the debate, and just politely **takes her turn** when speaking, then she'll never win.

15) Even in this business, where _____ is part of everyday life, a talent for lying is not something usually found on one's resume.

A. aspiration
B. mendacity[36]
C. prevarication[37]
D. insensitivity
E. baseness[38]
F. avarice[39]

EXPLANATION: The two parts of the sentence contrast with each other, as evidenced by the use of the word "even in this business, where...," which sets up an expectation of one thing, but a reality of another. Since the second part of the sentence says that "...lying is not usually" on a resume, the first part of the sentence must mean something nearly opposite — such as "lying is common." **CHOICES B** and **C** are correct — they both mean "lying," so they create that contrast.

CHOICE A: "Aspiration" is clearly a decoy answer, because although those who aspire (seek to achieve something) greatly will often lie in order to do so, these two concepts are not necessarily related. It also lacks a synonym pair.

CHOICE B: Yes, correct. "Mendacity" means dishonesty, so it works here.

CHOICE C: Yes, correct. "Prevarication" means avoidance of the truth, so it works here.

CHOICE D: "Insensitivity" is not the same as dishonesty.

CHOICE E: "Baseness" is the quality of lacking moral principles or character, and is not quite the same as dishonesty, because you can be base with or without being honest.

CHOICE F: "Avarice" is unsupported since there is no mention of greed.

---

[36] **mendacity** (noun): dishonesty, deception. "men DA sit ee"
Think: **mend the city**. The former mayor of Providence, Buddy Cianci, promised that he would **mend the city** and its underhanded ways, but his **mendacity** became apparent when he himself was arrested for corruption.

[37] **prevarication** (noun): avoidance of the truth, dishonesty. "pre vair uh KAY shun" Think: **pre-verification.** Because the leasing agent had been fooled by **prevarication** in the past, she required **pre-verification** of good credit before allowing a potential tenant to fill out a rental application.

[38] **baseness** (noun): morally low, having bad character, dishonorable. "BASE ness" Think: **basement**. In movies, plays and comic books, antagonists who are filled with **baseness** usually reside in a dungeon, secret lair or underground **basement**.

[39] **avarice** (noun): greed. "AVE uh riss" Think: **have all the rice**. During the food crisis in the third-world nation, its greedy dictator showed his **avarice** by proclaiming, "I'll have **all the rice** for myself — and my people can fend for themselves."

Question 16 is based on this passage.

> Historians frequently employ probate inventories — lists of possessions compiled after a person's death — to estimate standard of living. Because these inventories were taken by amateur assessors according to unwritten rules, they are sometimes unreliable. One way to check their accuracy is to compare them to archaeological records. A study of records from the state of Delaware in the eighteenth century found that while very few inventories listed earthenware, every excavation contained earthenware. Earthenware may have gone unlisted simply because it was inexpensive. But if it was so commonplace, why was it listed more often for wealthy households? Perhaps the more earthenware people had, the more likely appraisers were to note it. A few bowls could easily be absorbed into another category, but a roomful of earthenware could not.

16) Select the sentence that provides support for an answer to a question in the passage.

EXPLANATION: The question, "But if it was so commonplace, why was it listed more often for wealthy households?" is answered by the second to last sentence. **The final sentence is correct** because it provides supporting evidence to the second to last sentence.

Questions 17 to 19 are based on this passage.

> In the 1980s, neuroscientists studying the brain processes underlying our sense of conscious will compared subjects' judgments regarding their subjective will to move (W) and actual movement (M) with objective electroencephalographic activity called readiness potential, or RP. As expected, W preceded M: subjects consciously perceived the intention to move as preceding a conscious experience of actually moving. This might seem to suggest an appropriate correspondence between the sequence of subjective experiences and the sequence of the underlying events in the brain. But researchers actually found a surprising temporal relation between subjective experience and objectively measured neural events: in direct contradiction of the classical conception of free will, neural preparation to move (RP) preceded conscious awareness of the intention to move (W) by hundreds of milliseconds.

17) Based on information contained in the passage, which of the following chains of events would most closely conform to the classical conception of free will?

A. W followed by RP followed by M
B. RP followed by W followed by M
C. M followed by W followed by RP
D. RP followed by M followed by W
E. RP followed by W and M simultaneously

EXPLANATION: The last sentence explains a sequence of events that contradicted "in direct contradiction…"the classical conception of free will: (RP) preceding (W). Therefore, the classical conception must be the opposite of the researchers' findings: (W) preceding (RP). In addition, earlier in the passage, we read that "as expected, W preceded M," so the classical conception must have W preceding M. **CHOICE A** is correct: it has W preceding both RP and M.

CHOICE B: If you missed this question, we bet you picked B, but this is in fact what the new experiment showed in contradiction of the classical one.

CHOICE C: "As expected, W preceded M" — therefore, the classical theory had W preceding M.

CHOICE D: Wrong for the same reason as Choice C.

CHOICE E: W came before M, as expected, so the classical couldn't have had them occurring simultaneously.

18) In the context in which it appears, "temporal"[40] most nearly means

A. secular[41]
B. mundane[42]
C. numerical
D. physiological
E. chronological[43]

---

[40] **temporal** (adjective): relating to time. "TEM purr ul" Think: **temporary**. Technically, diamonds aren't forever; in a **temporal** sense, they're only **temporary** and will turn to dust one day.

[41] **secular** (adjective): not religious. "SEK you lurr" Think: **sex u later**. "If you are religious, then I am not interested, but if you are **secular** then I might want to **sex u later**," said the poorly written Tinder profile.

[42] **mundane** (adjective): boring, dull, ordinary. "Mun DANE" Think: **Mondays**. Asking someone whether they have a "case of the **Mondays**" is such a **mundane** saying that it's not funny anymore.

[43] **chronological** (adjective): ordered by time. "kron oh LODGE ih kull" Think: **chronic pain. Chronic** pain is the type of pain that keeps coming back, **time** after **time**. (Also, a chronograph is a fancy word for a stopwatch.)

EXPLANATION: "Temporal" means "concerning time," and the first part of the last sentence (where the word "temporal" appears) is explained by the second part of the last sentence, in which a discussion of time sequence occurs. **CHOICE E** is therefore correct because "chronological" means "related to time."

CHOICE A: "Secular" has nothing to do with the discussion involved.

CHOICE B: Neither does "mundane."

CHOICE C: "Numerical" might seem appropriate, but we're talking about time sequence, not just numbers.

CHOICE D: "Physiological" might seem to fit, too, but the discussion following is all about sequence, not physiology.

19) The author of the passage mentions the classical conception of free will primarily in order to

A. argue that earlier theories regarding certain brain processes were based on false assumptions.
B. suggest a possible flaw in the reasoning of neuroscientists conducting the study discussed in the passage.
C. provide a possible explanation for the unexpected results obtained by neuroscientists.
D. cast doubt on neuroscientists' conclusions regarding the temporal sequence of brain processes.
E. indicate the reason that the results of the neuroscientists' study were surprising.

EXPLANATION: The last sentence, in which the author mentions the classical conception of free will, begins by bringing up a "surprising" sequence of events. A good prediction for why the author mentions the "classical conception" might therefore be to provide context to explain why the events were surprising. **CHOICE E** is correct; by mentioning the classical (i.e., expected) conception being contradicted, the author gives the reader a reason that the events were unexpected.

CHOICE A: It would be going too far outside the passage to speculate that a contradiction to the classical theory = it was based on false assumptions.

CHOICE B: If anything, the researchers in the passage are lauded; no flaw is pointed out.

CHOICE C: We just get that the results were surprising and don't get an explanation of why they occurred.

CHOICE D: It would be going too far to suggest that a surprising result casts doubt on something as broad as "neuroscientists' understanding."

Question 20 is based on this passage.

Rain-soaked soil contains less oxygen than does drier soil. **The roots of melon plants perform less efficiently under the low-oxygen conditions present in rain-soaked soil.** When the efficiency of melon roots is impaired, the roots do not supply sufficient amounts of the proper nutrients for the plants to perform photosynthesis at their usual levels. It follows that **melon plants have a lower-than-usual rate of photosynthesis when their roots are in rain-soaked soil.** When the photosynthesis of the plants slows, sugar stored in the fruits is drawn off to supply the plants with energy. Therefore, ripe melons harvested after a prolonged period of heavy rain should be less sweet than other ripe melons.

20) In the argument given, the two highlighted portions play which of the following roles?

A. The first states the conclusion of the argument as a whole; the second provides support for that conclusion.
B. The first provides support for the conclusion of the argument as a whole; the second provides evidence that supports an objection to that conclusion.
C. The first provides support for an intermediate conclusion that supports a further conclusion stated in the argument; the second states that intermediate conclusion.
D. The first serves as an intermediate conclusion that supports a further conclusion stated in the argument; the second states the position that the argument as a whole opposes.
E. The first states the position that the argument as a whole opposes; the second supports the conclusion of the argument.

EXPLANATION: It can be helpful to classify each sentence for questions about function or role. The first sentence is a fact. The second sentence is another fact (in what seems to be a chain of events regarding melon plants). The third sentence is another related fact. The fourth sentence, "It follows that…" is a conclusion based on the preceding facts. The fifth sentence is another fact, and the final sentence is a conclusion based on the preceding facts. So a good prediction for the answer would be that the first bolded portion is a fact, and the second bolded part is a conclusion. **CHOICE C** is correct; the fact in the first bold part supports the conclusion in the second bold part, which in turn supports the conclusion in the final sentence.

CHOICE A: The first part is merely a fact, not a conclusion.

CHOICE B: The first part of this choice works, but the second part certainly doesn't support an objection to the conclusion — it, too, supports the conclusion.

CHOICE D: The first part of this choice works, but the second doesn't — we don't get any discussion of what the argument opposes.

CHOICE E: Wrong — the first part goes with the argument

PowerPrep Test 1

Verbal

Easy Version

(0-6 correct on Section 1)

1) In the 1950s, the country's inhabitants were _____ : most of them knew very little about foreign countries.

A. partisan[44]
F. erudite
G. insular[45][45]
H. cosmopolitan
I. imperturbable

EXPLANATION: The colon indicates an upcoming explanation. If most inhabitants knew very little about foreign countries, then it would be fitting to dub them "insular" (**CHOICE C**), which means "ignorant of or uninterested in the outside world."

CHOICE A: To be "partisan" is to hold allegiance toward something, which has nothing to do with "knowing little."

CHOICE B: To be "erudite" is to be knowledgeable — kind of the opposite of what we need.

CHOICE D: To be "cosmopolitan" is to be worldly — the opposite of what we're looking for.

CHOICE E: To be "imperturbable" is to be calm — nothing to do with knowledge.

2) With the 1985 discovery of an ozone hole over Antarctica, an international ban on the production of chlorofluorocarbons — implicated in causing the ozone hole — began to appear _____, especially since chemical companies' opposition to such a ban had weakened.

A. imprudent
B. fortuitous[46]
C. premature
D. imminent[47]
E. unlikely

---

[44] **partisan** (adjective): biased toward one side.
Think: **Party's son**. The chairman of the Democratic **Party's son** was understandably **partisan** about politics.

[45] **insular** (adjective): narrow-minded.
Think: **insulated**. The hermit's outlook was so **insular** because his cave **insulated** him from the rest of the world.

[46] **fortuitous** (adjective): lucky.
Think: **fortunate for us**. It was **fortuitous** and **fortunate for us** that the polar bear we encountered had just eaten a seal and was too full to eat us.

[47] **imminent** (adjective): about to happen.
Think: **in a moment**. The evil-looking storm clouds told us a downpour was **imminent** – it would happen **in a moment**.

EXPLANATION: The sentence provides two good reasons to indicate a ban on chlorofluorocarbons makes sense / is coming soon: they were "implicated in causing the ozone hole" and "chemicals companies' opposition to such a ban had weakened." Therefore, **CHOICE D** is correct, since "imminent" means "about to happen."

CHOICE A: if the ban were "imprudent," or unwise, the sentence wouldn't make sense; the ban is probably wise since the chemical companies' "opposition to (the ban) is weakened."

CHOICE B: "Fortuitous," or lucky, might seem to fit, but we don't have any specific support for luck; instead, we have support for the ban being likely.

CHOICE C: "Premature" makes no sense, since the sentence gives reasons for the ban to happen soon.

CHOICE E: "Unlikely" makes no sense either — good reasons for the ban are given.

3) The (i)_____ nature of classical tragedy in Athens belies the modern image of tragedy: in the modem view tragedy is austere and stripped down, its representations of ideological and emotional conflicts so superbly compressed that there's nothing (ii)_____ for time to erode.

Blank (i)	**Blank (ii)**
A. unadorned	D. inalienable
B. harmonious	E. exigent
C. multifaceted	F. extraneous

EXPLANATION: Figure out blank (i) by noticing the contrast set up by "belies": the modern view of tragedy is "austere and stripped down." Since this modern view is contrasted with the description created by blank (i), **CHOICE C**, "multifaceted," is the best contrast to austere. The phrase "so superbly compressed that…" indicates a logical result of that compression, so **CHOICE F**, "extraneous," is correct for blank (ii). Additional support for blank (ii) is given by "austere and stripped down"; the sentence at that point elaborates on how modern tragedy is austere.

CHOICE A: "Unadorned" might sound good due to the presence of words like "austere" and "stripped down," but we need a contrast with those words because of "belies."

CHOICE B: "Harmonious" doesn't create a good contrast with "austere" and "stripped down"; something could be both harmonious and austere.

CHOICE D: "Inalienable," or unable to be taken away, doesn't fit the clues "austere, compressed."

CHOICE E: "Exigent," or urgent, doesn't have any support, either.

4) That the President manages the economy is an assumption (i) _____ the prevailing wisdom that dominates electoral politics in the United States. As a result, presidential elections have become referenda on the business cycle, whose fortuitous turnings are (ii) _____ the President. Presidents are properly accountable for their executive and legislative performance, and certainly their actions may have profound effects on the economy. But these effects are (iii)_____. Unfortunately, modem political campaigns are fought on the untenable premise that Presidents can deliberately produce precise economic results.

Blank (i)	**Blank (ii)**	**Blank (iii)**
A. peripheral[48] to	D. justifiably personified in	G. usually long-lasting
B. central to	E. erroneously attributed to	H. regrettably unnoticeable
C. at odds with	F. occasionally associated with	I. largely unpredictable

EXPLANATION: A good place to begin is the final sentence, which tells you the general point of the passage: that Presidents have limited control over the economy. This helps inform blank (iii), which is also supported by the "but" in the next-to-last sentence: that "but" creates a contrast between a president's actions having a "profound effect" on the economy and how blank (iii) describes those effects. All this supports **CHOICE I**. Blank (i) is **CHOICE B**, since the point of the passage is to debunk the assumption that the President manages the economy. And blank (ii) is **CHOICE E**, which makes sense as well, given the point of the passage.

CHOICE A: "Peripheral" nearly creates the opposite of the meaning we need — the passage goes on to describe how presidential elections are "referenda on the business cycle" — i.e. people voting for the candidate they think will improve business.

CHOICE C: "At odds with" creates the opposite of the meaning we need for the same reasons as does "peripheral."

CHOICE D: "justifiably personified" makes it seem as though the passage agrees that the president can control the economy, but reading the end of the passage makes it clear that the passage is deeply skeptical about this.

CHOICE G: "long-lasting" wouldn't create contrast with the word "profound," contrast demanded by the word "but."

CHOICE H: We don't really have support for unnoticeable; it doesn't logically fit with the last sentence, which emphasizes that presidents can't deliberately affect the economy.

[48] **peripheral** (adjective): off to the side, external, related, tangential.
Think: **Perry Farrell**. **Perry Farrell**, the eccentric founder of Lollapalooza, has never made into the musical mainstream; he seems to prefer the **peripheral** genres.

5) Of course anyone who has ever perused an unmodernized text of Captain Clark's journals knows that the Captain was one of the most (i) _____ spellers to ever write in English, but despite this (ii) _____ orthographical rules, Clark is never unclear.

Blank (i)	Blank (ii)
A. indefatigable	D. disregard for
B. fastidious[49]	E. partiality toward
C. defiant	F. unpretentiousness about

EXPLANATION: Blank (ii)'s description of "orthographical rules" is contrasted with "Clark is never unclear," so **CHOICE D** best creates that contrast. (The contrast is created by the word "despite.") The contrast also works to inform blank (i); **CHOICE C** creates a good contrast with Clark being never unclear.

CHOICE A: "Indefatigable," or "tireless," doesn't make a whole lot of sense to describe a speller, nor does it go with Clark never being unclear.

CHOICE B: "Fastidious" is the opposite of what we want — it seems like Clark was an extremely careless, not fastidious, speller.

CHOICE E: If Clark had "partiality" for the rules, then he'd probably have been a good speller, not a poor one.

CHOICE F: "Unpretentiousness" might seem to fit — Clark didn't really care about the rules of spelling — but no hint is given toward his lack of pretention — rather, the clues point to his lack of regard for spelling things correctly.

6) To the untutored eye the tightly forested Ardennes hills around Sedan look quite (i) _____, (ii) _____ place through which to advance a modern army; even with today's more numerous and better roads and bridges, the woods and the river Meuse form a significant (iii) _____.

Blank (i)	Blank (ii)	Blank (iii)
A. impenetrable	D. a makeshift	G. resource
B. inconsiderable	E. an unpropitious[50]	H. impediment[51]
C. uncultivated	F. an unremarkable	I. passage

[49] **fastidious** (adjective): having very picky standards.
Think: **fast to tidy up**. My roommate is **fastidious** about cleaning; she gets mad if I am not **fast to tidy up** the apartment.

[50] **propitious** (adjective): favorable; promising.
Think: **prop it up**. In "A Charlie Brown Christmas," Linus thought the little tree was **propitious**, so he decided to **prop it up**.

[51] **impeded** (verb): blocked.
Think: **stampede**.
As I walked across the fruited plain, a buffalo **stampede impeded** my progress.

EXPLANATION: It's easy to start with blank (iii). The phrase "even with" sets up a contrast between the "numerous and better roads and bridges" and the last part of the sentence. Therefore, **CHOICE H** is correct since *impediment* means "obstacle." Given that the sentence ends by saying that the woods are difficult to pass through, the first half of the sentence can be assumed to have a similar meaning, since the two halves are connected by a semicolon. So **CHOICE A**, "impenetrable," makes sense for blank (i) and **CHOICE E**, an **"**unpropitious" (which means "unfavorable") works for blank (ii). Both create the same meaning that is created by the end of the sentence. Further support for these blanks is provided by the description of the hills as "tightly forested."

CHOICE B: "Inconsiderable" (insignificant or unimportant) doesn't make sense, given the mention of "today's more numerous roads and bridges" and the contrast to that description. Nothing is mentioned about anything being small or insignificant.

CHOICE C: "Uncultivated" (not grown or taken care of) might seem to fit, but it need not mean the area is difficult to pass through.

CHOICE D: "Makeshift" (assembled through improvisation) would be a weird way to describe hills — it also doesn't fit the clues about being hard to get through.

CHOICE F: "Unremarkable" (insignificant or unimportant) is too neutral, since we're getting a strong indication the hills are difficult to get through.

CHOICE G: The woods aren't a "resource" (a stock or supply of something; a source of material or information); they're an obstacle.

CHOICE I: "Passage" (a route through) is the opposite of what we need — we need something that creates contrast with the many roads and bridges.

Questions 7 to 9 are based on this passage.

In *Raisin in the Sun*, Lorraine Hansberry does not reject integration or the economic and moral promise of the American dream; rather, she remains loyal to this dream while looking, realistically, at its incomplete realization. Once we recognize this dual vision, we can accept the play's ironic nuances as deliberate social commentaries by Hansberry rather than as the "unintentional" irony that Bigsby attributes to the work. Indeed, a curiously persistent refusal to credit Hansberry with a capacity for intentional irony has led **some critics** to interpret the play's thematic conflicts as mere confusion, contradiction, or eclecticism.[52] Isaacs, for example, cannot easily reconcile Hansberry's intense concern for her race with her ideal of human reconciliation. But the play's complex view of Black self-esteem and human solidarity as compatible is no more "contradictory" than DuBois' famous, well-considered ideal of ethnic self-awareness coexisting with human unity, or Fanon's emphasis on an ideal internationalism that also accommodates national identities and roles.

7) The author of the passage would probably consider which of the following judgments to be most similar to the reasoning of the highlighted critics?

A. The world is certainly flat; therefore, the person proposing to sail around it is unquestionably foolhardy.
B. Radioactivity cannot be directly perceived; therefore, a scientist could not possibly control it in a laboratory.
C. The painter of this picture could not intend it to be funny; therefore, its humor must result from a lack of skill.
D. Traditional social mores are beneficial to culture; therefore, anyone who deviates from them acts destructively.
E. Filmmakers who produce documentaries deal exclusively with facts; therefore, a filmmaker who reinterprets particular events is misleading us.[52]

EXPLANATION: The passage tells you that the critics have a "curiously persistent refusal to credit Hansberry with a capacity for intentional irony." In other words, Hansberry's critics believe that the irony in her play must be unintentional. This is most similar to **CHOICE C**, which describes an analogous situation: the judgment of the painter — that he could not have intended his picture's humor — is very similar to the critics' judgment of Hansberry — that she could not have intentionally used irony.

CHOICE A: This might seem to work since Hansberry is being criticized, but the criticism deals with intention, not just whether she is foolish.

CHOICE B: We are given no evidence about perception.

CHOICE D: We are given no evidence about Hansberry deviating from social norms.

CHOICE E: The discussion doesn't focus on reinterpretation of events versus facts.

8) Select the sentence in the passage in which the author provides examples that reinforce an argument against a critical response cited earlier in the passage.

EXPLANATION: The "critical response" mentioned in the question is the critics' "curiously persistent refusal to credit Hansberry with a capacity for intentional irony." The argument against this response and examples reinforcing that argument are found in the last sentence. The author uses the examples of DuBois and Fanon to support her argument against the critics' response, so the right answer is **the final sentence**.

---

[52] **eclectic** (adjective): varied. "ek LEK tik"
Think: **selection collection**. If your musical tastes are **eclectic**, I can probably name any style **selection** and you'll say it's in your **collection**.

9) In the context in which it appears, "realization" most nearly means

A. understanding
B. accomplishment
C. depiction
D. recognition
E. discovery

EXPLANATION: Since the context discusses Hansberry's loyalty to the American dream while recognizing its "incomplete realization," the realization is an attribute of the American dream. **CHOICE B** is correct; one meaning of "realization" is "the achievement of something planned or hoped for," which is close to "accomplishment."

CHOICE A: This is an acceptable definition of "realization," but the context is about achievement, not understanding.

CHOICE C: It's the accomplishment of the dream that is incomplete, not its portrayal. In addition, "depiction" isn't an accepted definition of "realization."

CHOICE D: This definition works, but the context is more about achievement than recognizing something.

CHOICE E: Wrong for the same reason as Choice D.

Questions 10 and 11 are based on this passage.

> Objectively, of course, the various ecosystems that sustain life on the planet proceed independently of human agency, just as they operated before the hectic ascendancy of Homo sapiens. But it is also true that it is difficult to think of a single such system that has not, for better or worse, been substantially modified by human culture. Nor is this simply the work of the industrial centuries. It has been happening since the days of ancient Mesopotamia. It is coeval with the origins of writing, and has occurred throughout our social existence. And it is this irreversibly modified world, from the polar caps to the equatorial forests, that is all the nature we have.

Consider each of the choices separately and select all that apply.

10) It can be inferred from the passage that the author would agree with which of the following statements?

A. Over time, the impact of human culture on the natural world has been largely benign.
B. It is a mistake to think that the natural world contains many areas of pristine wilderness.
C. The only substantial effects that human agency has had on ecosystems have been inadvertent.

EXPLANATION: CHOICE B is the only correct answer. It's supported by "but it is also true that it is difficult to think of a single such system that has not, for better or worse, been substantially modified by human culture." If this is true, then the natural world could not have many areas which are "pristine," which means untouched. There is no inevitable support for Choice A or C; nowhere does the author say whether humans' impact has been "benign" or "inadvertent."

11) The author mentions "ancient Mesopotamia" primarily in order to

A. provide some geographical and historical context for an earlier claim about the ascendancy[53] of Homo sapiens
B. support the idea that the impact of human culture on nature was roughly the same in the ancient world as in later times
C. identify a place where the relationship between culture and nature was largely positive
D. emphasize the extent to which the modification of nature by human culture preceded the industrial period
E. make a connection between the origins of writing and other aspects of human cultural development

EXPLANATION: To figure out why an author did something, it can be useful to think about the phrase or sentence in relation to the sentence before it. In this case, the author brings up "ancient Mesopotamia" right after she writes "Nor is this (human influence) simply the work of the industrial centuries." It makes sense that the author is bringing up Mesopotamia to support her claim that it isn't just the industrial centuries - and to show the extent of that claim, i.e., that it has been going on since the beginning of humanity. **CHOICE D** is correct since it correctly identifies the author's purpose in bringing up ancient Mesopotamia as "emphasizing the extent" of how long human intervention has been going on. I personally thought about Choice A for a while, then realized there is no earlier "claim" about the ascendancy of Homo sapiens.

CHOICE B: There's no support for the impact in ancient times being the same as in later times.

CHOICE C: The opposite is true; the reference is used to support the negative influence of humans.

CHOICE E: No mention is made of this kind of connection and it therefore would be way too speculative.

[53] **ascendancy** (noun): dominance; superiority. "uh SEND ints ee"
Think: **ascend**. If you **ascend** the corporate ladder and become chairman of the board, you'll enjoy **ascendancy**.

Question 12 is based on this passage.

As an example of the devastation wrought on music publishers by the photocopier, one executive noted that for a recent choral festival with 1,200 singers, the festival's organizing committee purchased only 12 copies of the music published by her company that was performed as part of the festival.

12) Which of the following, if true, most seriously weakens the support the example lends to the executive's contention that music publishers have been devastated by the photocopier?

A. Only a third of the 1,200 singers were involved in performing the music published by the executive's company.
B. Half of the singers at the festival had already heard the music they were to perform before they began to practice for the festival.
C. Because of shortages in funding, the organizing committee of the choral festival required singers to purchase their own copies of the music performed at the festival.
D. Each copy of music that was performed at the festival was shared by two singers.
E. As a result of publicity generated by its performance at the festival, the type of music performed at the festival became more widely known.

EXPLANATION: The correct choice should raise a plausible objection to the argument. In this case, the argument is that there were 1200 singers, but only 12 copies of the music were purchased by the committee, so the committee must have made photocopies of the music. **CHOICE C** is correct because it raises another possibility, thus weakening the argument — that the singers bought their own music. Notice that if you consider what that opposite of Choice C would be — that singers couldn't purchase their own music — that the argument would be strengthened, since it would eliminate a way for the singers to get the music other than from the committee. This provides additional confirmation that Choice C is right.

CHOICE A: Even if only a third of the singers were involved, that's 400 singers and only 12 copies sold — hardly a good refutation of the argument.

CHOICE B: This is a trap because it's a logical reason why fewer copies were sold, but it doesn't affect the argument at all.

CHOICE D: Even if the music was shared, it doesn't weaken the claim that the copier reduced sales.

CHOICE E: This is way off — the music becoming popular has no bearing on whether the copier was at fault.

Questions #13-16:

Select the *two* answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole *and* produce completed sentences that are alike in meaning.

13) The ex-minister's real crime, in the eyes of his _____ political friends who subsequently[54] abandoned him, was not so much that he was wrong as that he raised questions that must not be raised.

A. erstwhile
B. proxy
C. false
D. self-styled
E. onetime
F. surrogate

EXPLANATION: The blank describes the ex-minister's political friends, so we need to search for clues in the sentence regarding those friends. All we are given is that they "subsequently abandoned him," which means that our answers must pertain to the temporary nature of this friendship. Therefore, **CHOICE A** "erstwhile," and **CHOICE E** "onetime," which both mean "former," are the correct answers here.

Avoid Choice C, "false," and Choice D, "self-styled," both of which refer to insincerity or misrepresentation. There is nothing definitive in this sentence to suggest that his (former) friends should not have been trusted. It is easy to read into this sentence, and assign some ill will to the friends, especially given their ignorant stance on free speech, but there is no proof to support this interpretation. All we know for sure is that his friends abandoned him, so we must choose the words that are the closest match.

CHOICE B: "Proxy" might seem fine, but it doesn't reflect the clue that his friends later abandoned him.

CHOICE F: You might have picked this since it matches proxy, but it also doesn't reflect the clues in the sentence.

---

[54] **subsequent** (adjective): following, next. "SUB sih kwent"
Think: **sub-sequence = next in the sequence**.
A **subsequence** is the **next** occurrence **in a sequence**: that which follows.

14) Dreams are _____ in and of themselves, but, when combined with other data, they can tell us much about the dreamer.

A. astonishing
B. disordered
C. harmless
D. inscrutable
E. revealing
F. uninformative

EXPLANATION: Notice the contrast in this sentence, and if you can, try to simplify it in your mind (or jot it down if you have time): *"Dreams are _____, but informative."* Hence, the blanks are the words that mean "not informative": **CHOICE D**, "inscrutable," and **CHOICE F,** "uninformative." Incorrect answer evaluations:

CHOICE A: Not even close: "astonishing" is a stronger version of "informative," not an antonym.

CHOICE B: Sounds tempting at first, but we are given no evidence re: organization.

CHOICE C: "Harmless" is not the opposite of informative.

CHOICE E: "Revealing" is a synonym of informative, not an antonym.

15) International financial issues are typically _____ by the United States media because they are too technical to make snappy headlines and too inaccessible to people who lack a background in economics.

A. neglected
B. slighted
C. overrated
D. hidden
E. criticized
F. repudiated[55]

EXPLANATION: The blank describes the way that international financial issues are handled by the US media. Two reasons are given: 1) they are too technical and 2) too inaccessible. Thus, our answers should reflect both reasons provided.

The correct answers are **CHOICE A**, "neglected," and **CHOICE B**, "slighted," which both refer to something being ignored, fitting the blanks quite well. There is no justification for answers E and F because they are too strong and lack support. Choice D, "hidden," is tempting, but the emphasis is on a lack of understanding, not an active desire to conceal. Remember that specific, strong answers require specific and strong proof in the text.

---

[55] **repudiate** (verb): to refuse to accept; to reject. "ruh PYOO dee ate"
Think: **refuse poo I ate**. If I ate shit, my stomach would **refuse the poo I ate** and **repudiate** it by vomiting uncontrollably.

16) Despite the pride that the play's characters take in their worldly-wise absence of illusions, they are not above a degree of unjustified _____.

A. prevarication[56]
B. satisfaction
C. self-flattery
D. affectation[57]
E. narcissism
F. indolence

EXPLANATION: The blank describes something that the play's characters are "not above," meaning that they are prone to it. All we know from the sentence is that they are worldly and wise (or at least that they think so), and that they are proud of it. We don't have any answers to correspond to the first two details, so we must choose the answers that indicate self-pride: **CHOICE C**, "self-flattery," and **CHOICE E**, "narcissism," do the trick.

CHOICE A: "Prevarication" might seem to fit due to the sentence's negativity, but it doesn't create a logical contrast to "pride in their absence of illusions," nor can we pair it with another choice to create a similar meaning.

CHOICE B: "Satisfaction" creates continuation, not contrast.

CHOICE D: "Affectation" does work, but unfortunately there's no choice to pair it with.

CHOICE F: "Indolence" is negative but isn't a good contrast to the clue.

Questions 17 and 18 are based on this passage.

> A tall tree can transport a hundred gallons of water a day from its roots deep underground to the treetop. Is this movement propelled by pulling the water from above or pushing it from below? The pull mechanism has long been favored by most scientists. First proposed in the late 1800s, the theory relies on a property of water not commonly associated with fluids: its tensile strength. Instead of making a clean break, water evaporating from treetops tugs on the remaining water molecules, with that tug extending from molecule to molecule all the way down to the roots. The tree itself does not actually push or pull; all the energy for lifting water comes from the sun's evaporative power.

---

[56] **prevaricate** (verb): to lie. "pruh VAIR uh kate"
Think: **prevent verify**. To cover for you, your friend will **prevaricate** and **prevent** the cop from **verifying** what really happened.

[57] **affectation** (noun): an artificial way of behaving. "aah fek TAY shun"
Think: **a fake fiction**. Madonna's phony English accent is an **affectation**; it is **a fake fiction**.

Consider all of the choices separately and select all that apply.

17) Which of the following statements is supported by the passage?

A. The pull theory is not universally accepted by scientists.
B. The pull theory depends on one of water's physical properties.
C. The pull theory originated earlier than did the push theory

---

EXPLANATION:

CHOICE A: True. Although "the pull mechanism has long been favored by most scientists," this does not indicate universal acceptance. Universal = all (not some)

CHOICE B: True. It depends upon "its tensile strength."

CHOICE C: False. We are not given enough information to establish a definitive timeline.

The correct answers are **CHOICE A** and **CHOICE B**.

18) The passage provides information on each of the following EXCEPT

A. when the pull theory originated.
B. the amount of water a tall tree can transport.
C. the significance of water's tensile strength in the pull theory.
D. the role of the sun in the pull theory.
E. the mechanism underlying water's tensile strength.

EXPLANATION: The double-negative logic of "EXCEPT / NOT / LEAST" questions can be tricky to wrap your head around sometimes. Tip: try labeling your answers as "true" or "false." The correct answer is the outlier — the one that is different from the others.

CHOICE A: True: "First proposed in the late 1800s…."

CHOICE B: True: "a hundred gallons a day."

CHOICE C: True (last part of passage).

CHOICE D: True (last line of passage).

CHOICE E: False. We are told that water has tensile strength but are not given the underlying mechanism. Larger lesson: just because we are told that something is true does not mean that we know *why* it is true.

Thus, the correct answer is **CHOICE E**.

Questions 19 and 20 are based on this passage.

> The most plausible[58] justification for higher taxes on automobile fuel is that fuel consumption harms the environment and thus adds to the costs of traffic congestion. But the fact that burning fuel creates these "negative externalities" does not imply that no tax on fuel could ever be too high. Economics is precise about the tax that should, in principle, be levied to deal with negative externalities: the tax on a liter of fuel should be equal to the harm caused by using a liter of fuel. If the tax is more than that, its costs (including the inconvenience to those who would rather have used their cars) will **exceed** its benefits (including any reduction in congestion and pollution).

19) In the context in which it appears, "exceed" most nearly means

A. outstrip
B. magnify
C. delimit
D. offset
E. supplant[59]

EXPLANATION: Most people are familiar with the term "the costs exceed the benefits." Thus, we know that "to exceed" means "to be greater than," and that we are looking for an answer choice that means the same. So essentially, this is a vocabulary question.

CHOICE A: "Outstrip" = to "exceed" (**correct**).

CHOICE B: "Magnify" = to make greater.

CHOICE C: "Delimit" = to determine the limits or boundaries of.

CHOICE D: "Offset" = to counteract.

CHOICE E: "Supplant" = to replace.

---

[58] **plausible** (adjective): apparently true. "PLAWS ih bull"
Think: **applause-able**. When the magician sawed the lady in half, it looked so **plausible** that it was **applause-able**.

[59] **supplant** (verb): replace. "suh PLANT"
Think: **up plant**. After you pull **up a plant** out of the soil, you should **supplant** it with another one to help preserve the environment.*

20) The most plausible justification for higher taxes on automobile fuel is that fuel consumption harms the environment and thus adds to the costs of traffic congestion. But the fact that burning fuel creates these "negative externalities" does not imply that no tax on fuel could ever be too high. Economics is precise about the tax that should, in principle, be levied to deal with negative externalities: ***the tax on a liter of fuel should be equal to the harm caused by using a liter of fuel.*** If the tax is more than that, its costs (including the inconvenience to those who would rather have used their cars) will exceed its benefits (including any reduction in congestion and pollution).

Which of the following best characterizes the function of the highlighted portion of the passage?

A. It restates a point made earlier in the passage.
B. It provides the evidence on which a theory is based.
C. It presents a specific application of a general principle.
D. It summarizes a justification with which the author disagrees.
E. It suggests that the benefits of a particular strategy have been overestimated.

EXPLANATION: Because the highlighted portion is preceded by the explanation of the proper application of taxes in general, and the highlighted portion itself explains how that concept applies to fuel specifically, the answer is **CHOICE C**.

CHOICE A: The point was not made earlier.

CHOICE B: This is hypothetical and thus does not qualify as evidence.

CHOICE D: The author does not disagree.

CHOICE E: No evidence to support this conclusion.

PowerPrep Test 1

Verbal

Medium Difficulty Version

(At least 8 correct on Section 1)

1) It is his dubious[60] distinction to have proved what nobody would think of denying, that Romero at the age of sixty-four writes with all of the characteristics of _____.

A. maturity
B. fiction
C. inventiveness
D. art
E. brilliance

EXPLANATION: Only "maturity" (**CHOICE A**) is supported by the description in the sentence. Romero is sixty-four, and has proved what no one would deny, so his writing must be mature due to his advanced age. It's easier here to eliminate, since no case can be made for any of the other choices.

CHOICE B: "Fiction" would be speculative; we don't know whether Romero writes fiction or non-fiction.

CHOICE C: Likewise, we have no support for whether he's "inventive" or not.

CHOICE D: There's no support for whether Romero's writing is "art" or not.

CHOICE E: And there's no support for whether Romero's writing is "brilliant" or not.

2) Far from viewing Jefferson as a skeptical but enlightened intellectual, historians of the 1960s have portrayed him as _____ thinker, eager to fill the young with his political orthodoxy while censoring ideas he did not like.

A. an adventurous
B. a doctrinaire[61]
C. an eclectic[62]
D. a judicious
E. a cynical

---

[60] **dubious** (adjective): doubtful.
Think: **dubious doob**. That is a **dubious doob**, my friend — it looks like oregano if you ask me.

[61] **doctrinaire** (noun): rigid and dogmatic.
Think: **Doctorate in Air**.
I once met an academic with a **Doctorate** (Ph.D) **in Air**, and I asked him whether oxygen molecules always travel in pairs.
"Yes, they do," he said, "...with zero exceptions."*

[62] **eclectic** (adjective): varied.
Think: **selection collection**.
If your musical tastes are **eclectic**, I can probably name any style **selection** and you'll say it's in your **collection**.

EXPLANATION: The portion of the sentence after the word "thinker" is describing what kind of think Jefferson is. Someone "eager to fill the young with political orthodoxy" and someone who "censor(s) ideas he did not like" could certainly be described as a "doctrinaire" (**CHOICE B**) — i.e., someone who wants to indoctrinate, or impose his ideas upon, others. You get a bit more of a clue from the first part of the sentence — that Jefferson is far from skeptical but enlightened.

CHOICE A: "Adventurous" doesn't reflect our clue about political orthodoxy.

CHOICE C: "Eclectic" doesn't fit political orthodoxy, either.

CHOICE D: "Judicious" would contradict "eager to fill… orthodoxy."

CHOICE E: "Cynical" doesn't have much to do with "…orthodoxy, either."

3) Of course anyone who has ever perused an unmodernized text of Captain Clark's journals knows that the Captain was one of the most
(i) _____ spellers to ever write in English, but despite this
(ii) _____ orthographical rules, Clark is never unclear.

Blank (i)	Blank (ii)
A. indefatigable	D. disregard for
B. fastidious[63]	E. partiality toward
C. defiant	F. unpretentiousness about

EXPLANATION: Blank (ii)'s description of "orthographical rules" is contrasted with "Clark is never unclear," so **CHOICE D** best creates that contrast. (The contrast is created by the word "despite.") The contrast also works to inform blank (i); **CHOICE C** creates a good contrast with Clark being never unclear.

CHOICE A: "Indefatigable," or tireless, wouldn't create the needed contrast with "never unclear."

CHOICE B: "Fastidious" is the opposite of what we need since we want a contrast to "never unclear."

CHOICE E: "Partiality toward" would go with "never unclear," and we need a contrast.

CHOICE F: "Unpretentiousness about" is a little too ambiguous, and wouldn't necessarily create the contrast we want (we need him to break the rules).

[63] **fastidious** (adjective): having very picky standards.
Think: **fast to tidy up**.
My roommate is **fastidious** about cleaning; she gets mad if I am not **fast to tidy up** the apartment.

4) The playwright's approach is (i) _____ in that her works (ii) _____ the theatrical devices normally used to create drama on the stage.

	Blank (i)	**Blank (ii)**
A.	pedestrian	D. jettison
B.	startling	E. experiment with
C.	celebrated	F. distill

EXPLANATION: This is a rare "trial and error" double blank: there aren't enough clues in the sentence to allow you to anticipate either blank, so you have to experiment with the answer choices to create a logical sentence. **CHOICES B and D** are correct since it logically would be "startling" for a work to "jettison" (get rid of) normal theatrical devices. A common wrong answer choice is Choices B and E, but "experimenting with" normal devices wouldn't justify "startling" very well.

CHOICE A: There's no logical match to "pedestrian" (we'd need something like "trite").

CHOICE C: There's no match to "celebrated" (which would be tough to justify with any word in blank ii).

CHOICE E: If we picked "experiment with," her approach need not be startling.

CHOICE F: "Distill" doesn't explain any of the choices for the first blank.

5) The traditional gap between theorists and experimentalists is (i) _____ as one of haughty[64] high priests versus pugnacious[65] pragmatists[66]. But the reality is more often that one researcher does not understand another's jargon, or is afraid to ask stupid questions, or is hesitant about giving up vital and hard-won information to a distant colleague. These were the kinds of (ii)_____ that Dr. Sonnenwald was able to (iii) _____ , leading to greater cooperation between theorists and experimentalists.

---

[64] **haughty** (adjective): proud in a way that looks down on others.
Think: stuck-up **hottie**. Unfortunately, that senior class **hottie** is usually **haughty** when you talk to her.*

[65] **pugnacious** (adjective): wanting to fight.
Think: **Pug nation**.
Imagine how **pugnacious** a **Pug nation** would be – those little dogs definitely would be fighting all the time.

[66] **pragmatic** (adjective): practical.
Think: **practical automatic**. To be **practical**, buy an **automatic** car instead of a stick shift – it's more **pragmatic** for city driving.

Blank (i)	Blank (ii)	Blank (iii)
A. often caricatured	D. deceptions	G. propagate[67]
B. most accurately described	E. collusions	H. dismantle
C. unnecessarily lamented	F. barriers	I. identify

EXPLANATION: The second sentence is a good place to start: it tells you that researchers often don't understand or trust each other. It's easiest to solve blank (ii) first; the problems in the second sentence could be called "barriers" (**CHOICE F**). For blank (iii), if the doctor was able to do something that led to greater cooperation, then **CHOICE H**, "dismantle," is the best fit. Notice that for blank (i), the first sentence's description is contrasted with "reality" in the second sentence, ruling out Choice B. Choice C doesn't make sense (nothing is being "lamented"), but **CHOICE A** is correct because it creates the best contrast with reality; a "caricature" is a distortion of reality.

CHOICE D: We're talking about miscommunication, not "deception."

CHOICE E: They're not "colluding;" they're butting heads.

CHOICE G: If he "propagated" the miscommunication it wouldn't lead to cooperation.

CHOICE I: Just "identifying" a problem wouldn't necessarily fix it.

6) Room acoustics design criteria are determined according to the room's intended use. Music, for example, is best (i)_____ in spaces that are reverberant[68], a condition that generally makes speech less (ii)_____. Acoustics suitable for both speech and music can sometimes be created in the same space, although the result is never perfect, each having to be (iii)_____ to some extent.

Blank (i)	Blank (ii)	Blank (iii)
A. controlled	D. abrasive	G. compromised
B. appreciated	E. intelligible	H. eliminated
C. employed	F. ubiquitous[69]	I. considered

[67] **propagate** (verb): breed, grow, promote, publicize.
Think: **proper gait**.
The first step to **propagating** your DNA is to cultivate the **proper gait**: in other words, you have to learn how to look good while walking. *

[68] **reverberate** (verb): to echo.
Think: **re-vibrate**.
I yodeled in the empty concert hall, and the echoes **reverberated** and **re-vibrated** as they bounced off the walls.*

[69] **ubiquitous** (adjective): existing everywhere.
Think: **you big Quidditch**. **You big Quidditch** fans have made the Harry Potter sport **ubiquitous** on college campuses.

EXPLANATION: The first sentence helps to establish we're talking about making acoustics work. The only word that both makes sense for the context and is good English is **CHOICE B**, "appreciated;" you can't really control or employ music in this context. From the last sentence, we get the sense acoustics don't work well for both music and speech, so blank (iii) is **CHOICE G,** "compromised." This sentence also informs blank (ii), which is **CHOICE E**, "intelligible," which means "able to be understood." This makes sense given that if music is optimized, speech acoustics are compromised.

CHOICE A: It doesn't make sense to "control" music.

CHOICE C: Likewise, you can't "employ" music, nor does it create the needed contrast with speech.

CHOICE D: Since we find a happy medium between speech and music in the final sentence, it makes sense to have a positive word here and abrasive is too negative.

CHOICE F: "Ubiquitous" doesn't give us the negativity we need.

CHOICE H: "Eliminated" isn't quite right; we don't have support for getting rid of either.

CHOICE I: "Considered" doesn't reflect the balance we need to strike.

Questions 7 to 9 are based on this passage.

> In *Raisin in the Sun*, Lorraine Hansberry does not reject integration or the economic and moral promise of the American dream; rather, she remains loyal to this dream while looking, realistically, at its incomplete realization. Once we recognize this dual vision, we can accept the play's ironic nuances as deliberate social commentaries by Hansberry rather than as the "unintentional" irony that Bigsby attributes to the work. Indeed, a curiously persistent refusal to credit Hansberry with a capacity for intentional irony has led **some critics** to interpret the play's thematic conflicts as mere confusion, contradiction, or eclecticism.[70] Isaacs, for example, cannot easily reconcile Hansberry's intense concern for her race with her ideal of human reconciliation. But the play's complex view of Black self-esteem and human solidarity as compatible is no more "contradictory" than DuBois' famous, well- considered ideal of ethnic self-awareness coexisting with human unity, or Fanon's emphasis on an ideal internationalism that also accommodates national identities and roles.

[70] **eclectic** (adjective): varied.
Think: **selection collection**.
If your musical tastes are eclectic, I can probably name any style selection and you'll say it's in your collection.

7) The author's primary purpose in the passage is to

A. explain some critics' refusal to consider *Raisin in the Sun* a deliberately ironic play.
B. suggest that ironic nuances ally *Raisin in the Sun* with Du Bois' and Fanon's writings.
C. analyze the fundamental dramatic conflicts in *Raisin in the Sun.*
D. emphasize the inclusion of contradictory elements in *Raisin in the Sun.*
E. affirm the thematic coherence[71] underlying *Raisin in the Sun.*

EXPLANATION: The author begins with an interpretation of the play, then asserts that the play's irony is "deliberate" rather than what some critics believe it to be (unintentional). The author continues describing the critics in a critical way, then ends by defending the play's themes. The correct answer is **CHOICE E**, because in defending the play, the author is "affirming its thematic coherence." Choice A doesn't work; the passage does not merely explain the critics' refusal. Choice C is incorrect; the author doesn't analyze the play's conflicts; she defends the play's coherence.

CHOICE B: It's clear that the play is aligned with Du Bois' and Fanon's writings, but it's because of their contradictions, not "ironic nuances."

CHOICE D: The author isn't just pointing out the contradictory elements; she's defending them.

8) In which of the following does the author of the passage reinforce a criticism of responses such as Isaacs' to *Raisin in the Sun*?

A. The statement that Hansberry is "loyal" to the American dream
B. The description of Hansberry' s concern for African Americans as "intense"
C. The assertion that Hansberry is concerned with "human solidarity"
D. The description of DuBois' ideal as "well-considered"
E. The description of Fanon's internationalism as "ideal"

EXPLANATION: This question is quite hard! First, let's summarize the question. We are looking for a *reinforcement of a criticism of responses such as Isaacs'*. In other words, the author needs to first criticize Issacs' response, then reinforce it. Next, let's locate what we need. Isaacs' response is the sentence beginning with "Isaacs." The author's criticism of responses such as Isaacs', not surprisingly, must follow Isaacs' response itself: it's in the next (and final sentence). She reinforces her criticism later in the sentence, which rules out A, B, and C, and leaves us with Choices D and E. To figure out which one is correct, we need to realize the nature of Isaacs' criticism — he couldn't

---

[71] **cohesive** (adjective): holding together well.
Think: **adhesive**.
A **cohesive** argument holds together even when attacked – as if it's strengthened by an **adhesive**.

reconcile two (seemingly) disparate[72] aspects of the play. **CHOICE D** is right because by calling DuBois' ideal "well-considered," the author is reinforcing her criticism of Isaacs' response. DuBois' ideal is that two disparate concepts can co-exist — which is similar to the two aspects Isaacs has described as finding difficult to "reconcile" — and is thus more relevant to the issue at hand. Choice E doesn't work quite as well, since calling Fanon's internationalism "ideal" doesn't reinforce anything pre-existing; it only compliments the internationalism, which is a new topic to this passage and less relevant to *Raisin in the Sun*'s focus on the relationship between ethnicity and humanity as a whole.

To summarize:

CHOICE A: No, the author states this early on, and it is a positive statement, so it's not a criticism at all, never mind a *reinforcement of a criticism*.

CHOICE B: This is part of Isaacs' response itself, not the reinforcement of a criticism of that response.

CHOICE C: The author supports this idea, not disputes it — hence it includes no criticism. (Quotation marks imply skepticism.)

CHOICE D: Yes. Providing an example of another author who successfully reconciles two similarly disparate concepts reinforces the idea that Isaacs is not correct in his response — which is a criticism.

CHOICE E: This is used as a follow-up example, but is slightly less relevant to the issue at hand due to its lack of focus on ethnicity.

9) Consider each of the choices separately and select all that apply.

It can be inferred from the passage that the author believes which of the following about Hansberry's use of irony in *Raisin in the Sun?*

A. It reflects Hansberry's reservations about the extent to which the American dream has been realized.
B. It is justified by Hansberry's loyalty to a favorable depiction of American life.
C. It shows in the play's thematic conflicts.

EXPLANATION: CHOICE A is correct and is supported by the author's assertion that "(Hansberry) remains loyal to this (American) dream while looking, realistically, at its incomplete realization." Choice B is incorrect; Hansberry's loyalty is to the promise of the American dream, which is not the same as a favorable depiction of American life. **CHOICE C** is also correct; after the conflict (in the play) in the first sentence is mentioned, the passage continues to discuss the effects of that conflict.

---

[72] **disparate** (adjective): distinct; different.
Think: **This parrot vs. that pirate**.
This parrot is **disparate** (different) from **that pirate** on whose shoulder it is sitting. They are **disparate** species, after all...even if they do look a bit alike.

Questions 10 and 11 are based on this passage.

> Some universities have created environmental studies programs that can be marketed to prospective students but that suffer from too little administrative support, limited faculty resources, and a lack of careful deliberation over the hard choices. In the short term, this institutional strategy can pay rich dividends: at minimal expense a university can lay claim to an environmental studies program and attract new students or accommodate the interest of existing ones, perhaps with the full intention of bringing additional resources to bear in later years. As the number of students in these **skeleton programs** grows, however, the flimsy administrative and curricular scaffolding begins to buckle, leading to an anything-goes strategy that degenerates into curricular incoherence.

10) The passage implies which of the following about the relationship between students and environmental studies programs?

A. Students new to a university are more likely to be aware of environmental studies programs than existing students are.
B. Students prefer curricular incoherence in environmental studies programs to rigid administrative decision making.
C. The curricular flexibility of an environmental studies program is an attraction for new students.
D. If a university offers an environmental studies program, then students will enroll in it.
E. New students will guarantee the success of an environmental studies program.

EXPLANATION: "Implies" means that the right answer will be unavoidably true, but probably not stated literally. **CHOICE D** is correct: for the argument of the passage to unfold, the creation of the environmental studies program mentioned in the first sentence will have to actually have to have students enroll in it.

CHOICE A: For this to be true, we'd have to get a comparison between the awareness of prospective and current students.

CHOICE B: This is trying to trick us with "copy and paste" phrasing (straight from the text); however, the choice isn't supported in any way.

CHOICE C: We don't get support for this even though it seems logical.

CHOICE E: This would be hard to prove without crystal clear support in the text, and of course we don't get a guarantee for success at all.

11) Consider each of the choices separately and select all that apply.

The passage suggests which of the following about "skeleton programs" in environmental studies?

A. They may fail to attract prospective students.
B. At some point they are likely to collapse into curricular confusion.
C. They may pay rich dividends in the short term.

EXPLANATION: Choice A is not mentioned; the passage never discusses the possibility that the program won't attract new students. **CHOICE B** is supported by the last sentence, which describes curricular confusion, and **CHOICE C** is supported almost word-for-word by the second sentence.

Select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.

12) The vegetation at Stone Mountain, the best known of the large rock masses knows as monadnocks, is far from _____, having been decimated by the hiking traffic.

A. blighted
B. endangered
C. picturesque
D. pristine[73]
E. undisturbed
F. vulnerable

EXPLANATION: The blank "far from _____" describes the vegetation. We are told elsewhere that it has been decimated. If it is decimated — completely destroyed — then it is far from protected, thus the answers are **CHOICE D,** "pristine," and **CHOICE E**, "undisturbed."

CHOICE A: "Blighted" would create continuation, and we need contrast, since the vegetation has been "decimated."

CHOICE B: "Endangered" would also create continuation in the sentence.

CHOICE C: "Picturesque" fits but doesn't have a match.

CHOICE F: Invulnerable would work; "vulnerable" is the opposite of what we need due to the contrast.

---

[73] **pristine** (adjective): pure.
Think: **Listerine**.
Listerine mouthwash tastes bad but it kills bacteria and makes your mouth **pristine**.

13) At no point in her investigation does Tate allow _____ commentary from present-day partisans to skew her reckoning with past realities.

A. apposite[74]
B. ahistorical
C. anachronistic[75]
D. disinterested
E. objective[76]
F. germane

EXPLANATION: The description of the commentary must be something that could "skew her reckoning" with the past. **CHOICES B** and **C** create similar meanings for the sentence and fit the context; both "ahistorical" and "anachronistic" mean "historically inaccurate."

CHOICE A: Something "apposite" wouldn't skew anything.

CHOICE D: Likewise, something "disinterested' wouldn't fit with "skew."

CHOICE E: "Objective" doesn't go with "skew," either.

CHOICE F: "Germane" would contradict "skew" as well.

---

[74] **apposite** (adjective): appropriate.
Think: **a positive site**. Wikipedia is **a positive site** because it's **apposite** for all kinds of research.

[75] **anachronism** (noun): something belonging to a different time period.
Think: **inaccurate chronology.** The movie has something **inaccurate** about its **chronology**: a caveman wearing a watch — a huge **anachronism**.

[76] **objective** (adjective): not influenced by personal perspective.
Think: **object**. It's easy to have an **objective** opinion about an **object** like a rock — there's not much debate about what a rock is. *

14) Since becoming commissioner, Mr. Vincente has challenged the dominant firms in European industry more _____ than his smoother predecessors and has consequently acquired many more enemies.

A. sporadically
B. irascibly[77]
C. persistently
D. pugnaciously[78]
E. fitfully[79]
F. judiciously[80]

EXPLANATION: Mr. Vincente's predecessors are "smoother" than he is. "Consequently" tells us that the description in the blank also made him more enemies. Both **CHOICES B** and **D** create similar meanings: "irascibly" means "having a bad temper" and "pugnaciously" means "ready to fight or argue."

CHOICE A: Challenging more "sporadically" would hardly lead to more enemies.

CHOICE C: "Persistently" works but doesn't have a match.

CHOICE E: "Fitfully," like sporadically, wouldn't be likely to lead to more enemies.

CHOICE F: "Judiciously" wouldn't be likely to lead to more enemies, either.

---

[77] **irascible** (adjective): easily angered.
Think: **irritable rascal**. My grandfather is an **irritable** old **rascal**; he's so **irascible** that he yells at every waiter we ever get. *

[78] **pugnacious** (adjective): wanting to fight.
Think: **Pug nation**. Imagine how **pugnacious** a **Pug nation** would be – those little dogs definitely would be fighting all the time. *

[79] **fitful** (adjective): irregular; intermittent.
Think: **fit-full**. Our new baby only sleeps **fitfully** – the night seems **full** of his crying **fits**. *

[80] **judicious** (adjective): having good judgment.
Think: **judgment**.
The Beatles' song "Hey Jude" says to be **judicious**, to use good **judgment**, and to "let her into your heart." *

15) Dreams are _____ in and of themselves, but, when combined with other data, they can tell us much about the dreamer.

A. astonishing
B. disordered
C. harmless
D. inscrutable
E. revealing
F. uninformative

EXPLANATION: The word "but" creates a shift to the meaning in the second part of the sentence, that "they can tell us much." The meaning in the first part of the sentence must be something that doesn't tell us much. **CHOICES D** and **F** work because they both indicate that we don't get much information from dreams.

CHOICE A: "Astonishing" doesn't create contrast with "tell us much."

CHOICE B: "Disordered" doesn't necessarily mean we can or can't get information from the dreams.

CHOICE C: "Harmless" doesn't create contrast with "tell us much," either.

CHOICE E: "Revealing" would create continuation, and we need contrast.

Questions 16 and 17 are based on this passage.

> In early-twentieth-century England, it was fashionable to claim that only a completely "new style of writing" could **address** a world undergoing unprecedented transformation — just as one literary critic recently claimed that only the new "aesthetic of exploratory excess" can **address** a world undergoing... well, you know. Yet in early-twentieth-century England, T. S. Eliot, a man fascinated by the "presence" of the past, wrote the most innovative poetry of his time. The lesson for today's literary community seems obvious: a reorientation toward tradition would benefit writers no less than readers. But if our writers and critics indeed respect the novel's rich tradition (as they claim to), then why do they disdain the urge to tell an exciting story?

16) In the context of the passage as a whole, "address" is closest in meaning to

A. reveal
B. belie[81]
C. speak to
D. direct attention toward
E. attempt to remediate[82]

EXPLANATION: The meaning of "address" here — given the context of a new style of writing being adequate for a changing world — is similar to "deal with," so **CHOICE C**, "speak to," creates the closest meaning.

CHOICE A: We don't get any support for revealing the world.

CHOICE B: We don't get any contradiction from the context around "address."

CHOICE D: We don't get anything regarding focusing on the world.

CHOICE E: And we don't get anything about fixing the world.

17) The author of the passage suggests that present-day readers would particularly benefit from which of the following changes on the part of present-day writers and critics?

A. An increased focus on the importance of engaging the audience in a narrative.
B. Modernization of the traditional novelistic elements already familiar to readers.
C. Embracing aspects of fiction that are generally peripheral to the interest of readers.
D. A greater recognition of how the tradition of the novel has changed over time.
E. A better understanding of how certain poets such as Eliot have influenced fiction of the present time.

---

[81] **belied** (verb): contradicted.
Think: **lied**. The used car salesman's smooth manner was **belied** by his sweaty handshake and made me think, "He **lied**!"

[82] **remedial** (adjective): intended to correct at a basic level.
Think: **remedy**. If you are terrible at math, the only **remedy** might be to take a **remedial** math class.

EXPLANATION: The second-to-last sentence tells us that a "reorientation toward tradition" by writers would benefit readers. However, none of the answer choices accurately reflect that reorientation. It's helpful to look at the last sentence, which has the function of communicating the author's suggestion that writers should tell more exciting stories. **CHOICE A** is the best reflection of that exhortation, since "engaging the audience in a narrative" is another way of saying "telling an exciting story."

CHOICE B: We're told to focus on tradition but not to "modernize" it.

CHOICE C: We don't get anything about embracing the peripheral.

CHOICE D: We're told to "reorient" toward tradition, not to "recognize" how it has changed.

CHOICE E: There's no connection between Eliot and the present.

Questions 18 and 19 are based on this passage.

In 1996, scientists caused an experimental flood of the Colorado River by releasing water from Glen Canyon Dam above the Grand Canyon. Because an unintentional flood in 1983 had reduced the river's introduced population of nonnative trout, biologists were concerned that the experimental flood would wash many fish, native and nonnative, downstream. To find out, biologists placed nets in the river. The nets captured a few more trout than they would have without the flood but did not show substantial flushing of native fish, whose ancestors had, after all, survived many larger natural floods. The biologists surmised that the native species (and most of the trout) must have quickly retreated to protected areas along the riverbank.

18) Which of the following, if true, would make the information presented in the passage compatible with the experimental flood's in fact having caused substantial flushing of native fish?

A. Many of the native fish are too small to have been captured by the nets.
B. There had been an increase from normal levels in the native fish population prior to the flood.
C. The native fish in the Colorado are much stronger swimmers than taxonomically similar fish in other rivers in the region.
D. The unintentional flood of 1983 had not affected the river's trout population as much as was originally thought.
E. The experimental flood raised the water level much less than a typical natural flood would have.

EXPLANATION: The scientists seem to be basing their judgment that there wasn't much flushing of fish on the number of fish caught by the nets. However, if fish were flushed that were small enough to swim through the nets, then the scientists could have been wrong about the numbers. Therefore, **CHOICE A** is correct.

CHOICE B: Just because there was an increase in normal levels of native fish doesn't necessarily mean they were flushed (maybe they hid as well).

CHOICE C: If anything this would support the opposite of what we're looking for — if they were strong swimmers, they would probably be less likely to be flushed. Anyway, we don't know that strong swimming would have made any difference.

CHOICE D: This would also help the opposite of what we want: if the '83 flood didn't flush many fish, it would be less likely that the current flood did.

CHOICE E: This would also be the opposite of what we want — we need a choice that makes it more likely fish were flushed, and this one makes it less likely.

19) ***Consider each of the choices separately and select all that apply.***

According to the passage, which of the following is true of the Colorado River flood of 1983?

A. The flood had a negative effect on the river's trout population.
B. There was substantial flushing of the river's native fish population during the flood.
C. Unlike the 1996 flood, it was not deliberately caused for scientific research purposes.

EXPLANATION: CHOICE A is correct; the 1983 flood reduced the population of introduced trout, which is part of the total population. Choice B is incorrect; the passage doesn't mention flushing of native trout, and in fact the 1996 flood was designed to see whether native trout are flushed by floods — an experiment that might be unnecessary if the 1983 flood did. **CHOICE C** is correct; the 1983 flood was "unintentional."

Question 20 is based on this passage.

Electric washing machines, first introduced in the United States in 1925, significantly reduced the amount of time spent washing a given amount of clothes, yet the average amount of time households spent washing clothes increased after 1925. This increase is partially accounted for by the fact that many urban households had previously sent their clothes to professional laundries. But the average amount of time spent washing clothes also increased for rural households with no access to professional laundries.

20) Which of the following, if true, most helps to explain why the time spent washing clothes increased in rural areas?

A. People with access to an electric washing machine typically wore their clothes many fewer times before washing them than did people without access to electric washing machines.
B. Households that had sent their clothes to professional laundries before 1925 were more likely than other households to purchase an electric washing machine when they became available.
C. People living in urban households that had previously sent their clothes to professional laundries typically owned more clothes than did people living in rural households.
D. The earliest electric washing machines required the user to spend much more time beside the machine than do modem electric washing machines.
E. In the 1920s and 1930s the proportion of rural households with electricity was smaller than the proportion of urban households with electricity.

EXPLANATION: The passage presents a paradox: washing time in rural households increased even though those households — which previously had to wash clothes by hand — now could use washing machines. We need to look for a choice that allows these contradictory facts to remain true. **CHOICE A** is correct because it gives a plausible explanation for the situation — now people in those households did their laundry more since the machines made it easier — which would naturally increase their time spent washing clothes.

CHOICE B: Just because they were more likely to purchase an electric washer doesn't explain why they spent more time washing clothes.

CHOICE C: This wouldn't explain why rural households spent more time — if anything it would explain why they spent less time.

CHOICE D: Modern machines are irrelevant to why rural households spent more time.

CHOICE E: This doesn't necessarily connect to spending more time washing clothes even if it suggests more rural households washed clothes by hand. Plus, the proportion could be .01% lower or 90% lower — we don't know.

PowerPrep Test 1

Verbal

Hard Version

(At least 15 correct on Section 1)

1) Far from viewing Jefferson as a skeptical but enlightened intellectual, historians of the 1960s have portrayed him as _____ thinker, eager to fill the young with his political orthodoxy[83] while censoring ideas he did not like.

A. an adventurous
B. a doctrinaire[84]
C. an eclectic[85]
D. a judicious[86]
E. a cynical

EXPLANATION: Jefferson is portrayed here as the opposite of a "skeptical but enlightened intellectual," which is hard to define: is he gullible and unenlightened? However, the second part is much more useful to us as test-takers, because it refers to Jefferson's "political orthodoxy." "Orthodox" is an adjective that means strict and rigidly interpreted, and so does the correct answer, **CHOICE B** "doctrinaire."

CHOICE A: "Adventurous" = not enough support.

CHOICE B: Correct.

CHOICE C: "Eclectic" = varied interests (no proof).

CHOICE D: "Judicious" = wise.

CHOICE E: "Cynical" = jaded, pessimistic.

---

83 **orthodox** (adjective): conventional; traditional.
Think: **orthodontist**. Look for an **orthodox orthodontist**; you don't want someone getting creative with your teeth.

84 **doctrinaire** (noun): rigid and dogmatic.
Think: **Doctorate in Air**. I once met an academic with a **Doctorate** (Ph.D) **in Air**, and I asked him whether oxygen molecules always travel in pairs.
"Yes, they do," he said, "...with zero exceptions." *

85 **eclectic** (adjective): varied.
Think: **selection collection**.
If your musical tastes are **eclectic**, I can probably name any style **selection** and you'll say it's in your **collection**.

86 **judicious** (adjective): having good judgment.
Think: **judgment**.
The Beatles' song "Hey Jude" says to be **judicious**, to use good **judgment**, and to "let her into your heart."

2) Stories are a haunted genre; hardly (i) _____ kind of story, the ghost story is almost the paradigm[87] of the form, and (ii)_____ was undoubtedly one effect that Poe had in mind when he wrote about how stories work.

Blank (i)	**Blank (ii)**
A. a debased	D. pessimism
B. a normative	E. goosebumps
C. a meticulous	F. curiosity

EXPLANATION: Blank (i) is easiest to start with because of the contrast created by "hardly." We know we end up with ghost stories being the "paradigm," or typical example of, the form, so a good contrast is created with **CHOICE A**, "debased," which in this context means less pure. The word "and" next to blank (ii) indicates continuation; **CHOICE E**, "goosebumps," is correct because it continues the statement in the beginning ("Stories are a haunted genre").

CHOICE B: "Normative" isn't a good contrast to "paradigm."

CHOICE C: Neither is "meticulous."

CHOICE D: There's no support for "pessimism."

CHOICE F: Nor is there support for "curiosity."

87 **paradigm** (noun): an example used as a pattern or model.
Think: **pair of dimes**.
Those two girls are a **pair of dimes** since they're both 10s – they're **paradigms** for how to look hot.

3) The playwright's approach is (i)_____ in that her works (ii)_____ the theatrical devices normally used to create drama on the stage.

Blank (i)	**Blank (ii)**
A. pedestrian[88]	D. jettison
B. startling	E. experiment with
C. celebrated	F. distill

EXPLANATION: This is a rare "trial and error" double blank: there aren't enough clues in the sentence to allow you to anticipate either blank, so you have to experiment with the answer choices to create a logical sentence. **CHOICES B** and **D** are correct since it logically would be "startling" for a work to "jettison" (get rid of) normal theatrical devices. A common wrong answer choice is Choices B and E, but "experimenting with" normal devices wouldn't justify "startling" very well.

CHOICE A: There's no logical match to "pedestrian" (we'd need something like "trite").

CHOICE C: There's no match to "celebrated" (which would be tough to justify with any word in blank ii).

CHOICE E: If we picked "experiment with," her approach need not be startling.

CHOICE F: "Distill" doesn't explain any of the choices for the first blank.

[88] **pedestrian** (adjective): dull; ordinary.
Think: **pedestrian** (noun).
You're **pedestrian** (adjective) because you're a **pedestrian** (noun) – cool kids drive to school. *

4) I've long anticipated this retrospective[89] of the artist's work, hoping that it would make (i)_____ judgments about him possible, but greater familiarity with his paintings highlights their inherent (ii)_____ and actually makes one's assessment (iii)_____.

Blank (i)	**Blank (ii)**	**Blank (iii)**
A. modish[90]	D. gloom	G. similarly equivocal[91]
B. settled	E. ambiguity	H. less sanguine[92]
C. detached	F. delicacy	I. more cynical

EXPLANATION: When working on text completion questions on the GRE, it is important to always define what the blank describes, and then look for additional evidence on that subject.

1. Blank (i)_____ judgments. A retrospective of the author's work would allow for a more complete judgment, thus **CHOICE B** "settled." "Modish" (in style) does not work, and there is no evidence that the author (clearly a long-time fan) could make "detached" judgments of the artist.
2. Blank (ii)There is not much to go off here other than the fact that it is contrasted with the first statement, letting us know that the narrator's hopes were not realized for some reason, supporting **CHOICE E** "ambiguity." There is no evidence for "gloom" or "delicacy," both very specific choices that would require explicit evidence from the text.
3. Blank (iii) describes the assessment, which has been stymied and is thus inconclusive, supporting **CHOICE G** "similarly equivocal." (To equivocate is to be unsure.) There is no evidence for "sanguine" (optimistic) or "cynical" (the opposite of optimistic), both very specific choices that would require explicit evidence from the text.

CHOICES B, E, and **G** are the correct answers.

---

[89] **retrospection** (noun): the act of thinking about the past.
Think: **retro-inspection**.
Retrospection about the 1980s is a **retro-inspection** that can lead to wearing neon clothes and leg warmers.

[90] **modish** (adjective): fashionable.
Think: **model-ish**.
Modish brands like Burberry and Prada are **model-ish** because only models seem to actually wear them.

[91] **equivocal** (adjective): intentionally unclear.
Think: **equally vocal**.
The **equivocal** politician was **equally vocal** about both sides of the issue.

[92] **sanguine** (adjective): optimistic.
Think: **Penguin sang win**.
The **penguin sang** that he would **win**; he was **sanguine**.

5) Higher energy prices would have many (i)_____ effects on society as a whole. Besides encouraging consumers to be more (ii)_____ in their use of gasoline, they would encourage the development of renewable alternative energy sources that are not (iii)_____ at current prices.

Blank (i)	**Blank (ii)**	**Blank (iii)**
A. pernicious[93]	D. aggressive	G. unstable
B. counterintuitive	E. predictable	H. unadaptable
C. salubrious	F. sparing	I. viable

EXPLANATION: GRE text completion questions are tricky. Thus, you can't expect to just walk right through them easily. In some cases, by the time you read the first blank, you still won't have any idea what the first blank should be. That's fine — just keep going.

1. Not sure yet, so keep going.
2. Higher energy prices would clearly have the effect of encouraging consumers to be thrifty, thus **CHOICE F** "sparing." I'm not sure what "aggressive effects on society" is supposed to mean, and although "predictable" might sound good there is no evidence in the text to support that choice.
3. Rearrange this if necessary to make it more logical. "Higher energy prices...would encourage the development of alternative energy sources that are not *practical/feasible/doable* at current prices. Thus **CHOICE I** "viable." We are given zero information related to the stability or adaptability of energy prices.
4. Clearly, #2 and #3 would be positive developments for society, hence **CHOICE C**, "salubrious," which means "healthy."

CHOICES C, F, and I are the correct answers.

LESSONS LEARNED: when in doubt, choose the answer with the most support in the text, and if that fails, favor general answers over specific answers, because specific answers require specific proof.

[93] **pernicious** (adjective): destructive; deadly.
Think: **piranhas vicious**. **Piranhas** are **vicious**; lingering in waters they inhabit can be **pernicious**.

6) But they pay little attention to the opposite and more treacherous failing: false certainty, refusing to confess their mistakes and implicitly[94] claiming (i) _____, thereby embarrassing the nation and undermining the Constitution, which established various mechanisms of self-correction on the premise that even the wisest men are sometimes wrong and need, precisely when they find it most (ii) _____, the benefit of (iii) _____ process.

Blank (i)	**Blank (ii)**	**Blank (iii)**
A. infallibility	D. discomfiting[95]	G. an adaptable
B. immunity	E. expedient[96]	H. a remedial[97]
C. impartiality	F. imminent[98]	I. an injudicious[99]

EXPLANATION: OK, so this is a hard one!

1. Blank (i) Not too much to go on here, but if you refuse to confess your mistakes then you are saying that you are "beyond fault." Another word for this is **CHOICE A**, "infallible," but Choice B, "immunity," is also pretty close. We can safely cross out Choice C, "impartiality," on our scratch paper because being stubborn and deflecting blame have no relation to whether one is impartial (unbiased) or not.
2. Blank (ii) A weird one, but process of elimination helps. Choice E, "expedient," means "convenient and practical," which could work, but then again, these wise men are, in the author's opinion, wrong so they probably don't think they need any help. Choice F, "imminent," means that something is "about to happen" which doesn't make much sense either. Hence **CHOICE D**, "discomfiting," is the best option here.

---

[94] **implicit** (adjective): suggested but not directly expressed.
Think: **implied**. It became **implicit** that the evening was over when my date **implied** that if she didn't leave now she would be too tired to work the next day.

[95] **discomfit** (verb): to embarrass or confuse.
Think: **discomfort**. Realizing one's suit had been replaced with a too-tight Speedo would **discomfort** and **discomfit** anyone.

[96] **expedient** (adjective): helpful in a practical way.
Think: **speedy**. To be **speedy**, I booked my flight on expedia.com; it was more **expedient** than calling the airline.

[97] **remedial** (adjective): intended to correct at a basic level.
Think: **remedy**. If you are terrible at math, the only **remedy** might be to take a **remedial** arithmetic class. *

[98] **imminent** (adjective): about to happen.
Think: **in a moment**. The evil-looking storm clouds told us a downpour was **imminent** – it would happen **in a moment**.

[99] **judicious** (adjective): having good judgment.
Think: **judgment**. The Beatles' song "Hey Jude" says to be **judicious**, to use good **judgment**, and to "let her into your heart."

3. Blank (iii) Another tough one. Choice G, "adaptable," is a tempting choice because it sounds good, but if you look for evidence of adaptability you will find none. Choice I, "injudicious," means "not just" and is clearly not correct. Hence the answer is **CHOICE H**, "a remedial," is the correct choice because "remedial" means "that which fixes or remedies."

Question 7 is based on the following passage:

"Music critics have consistently defined James P. Johnson as a great early jazz pianist, originator of the 1920s Harlem "stride" style, and an important blues and jazz composer. In addition, however, Johnson was an innovator in classical music, composing symphonic music that incorporated American, and especially African American, traditions.

Such a blend of musical elements was not entirely new: by 1924 both Milhaud and Gershwin had composed classical works that incorporated elements of jazz. Johnson, a serious musician more experienced than most classical composers with jazz, blues, spirituals, and popular music, was particularly suited to expand Milhaud's and Gershwin's experiments. In 1927 he completed his first large-scale work, the blues- and jazz-inspired Yamekraw, which included borrowings from spirituals and Johnson's own popular songs. Yamekraw, premiered successfully in Carnegie Hall, was a major achievement for Johnson, becoming his most frequently performed extended work. It demonstrated vividly the possibility of assimilating contemporary popular music into the symphonic tradition."

7) Which of the following best describes the organization of the passage?

A. A historical overview is presented, and a particular phenomenon is noted and analyzed.
B. A popular belief is challenged, and a rival interpretation is presented and supported.
C. A common viewpoint is presented and modified, and the modification is supported.
D. An observation is made and rejected, and evidence for that rejection is presented.
E. A common claim is investigated, and an alternative outlook is analyzed and criticized.

EXPLANATION: It's useful to label the organization of the passage in your words before considering the choices. The first sentence establishes critics' general opinion of Johnson, then the second sentence introduces a point of view that accredits Johnson with innovation in classical music as well. The rest of the passage is devoted to supporting the view that Johnson was an innovator in the realm of classical music. **CHOICE C** is correct; the common viewpoint that Johnson was an innovative jazz musician and composer is

modified by adding that he was also a skilled classical composer. Then that modification is supported with the details in the second paragraph.

CHOICE A: "Presented" leaves out the fact that the author is introducing a new view: that Johnson was also an innovator in classical music.

CHOICE B: There's no challenged belief. Rather, a belief is added to.

CHOICE D: There's no rejection in the passage.

CHOICE E: The common claim that Johnson was a great jazz / blues musician and composer isn't investigated — it's merely presented as background for the new claim (that he was also a great classical innovator).

8) Consider each of the choices separately and select all that apply.

The author suggests which of the following about most classical composers of the early 1920s?

A. They were strongly influenced by the musical experiments of Milhaud and Gershwin.
B. They had little working familiarity with such forms of American music as jazz, blues, and popular songs.
C. They made few attempts to introduce innovations into the classical symphonic tradition.

EXPLANATION: Choice A is not correct; the only connection the author makes to Milhaud and Gershwin is related to Johnson specifically, not other classical composers. **CHOICE B** is correct; the opening sentence of the second paragraph provides context that Milhaud and Gershwin were noteworthy as early experimenters in incorporating jazz and blues into classical compositions, so since the passage claims Johnson was "more experienced than most" with jazz, we can infer that most classical composers were not very familiar with jazz. Choice C is incorrect because no mention is made of most classical composers' attempts to innovate in general. (If Choice C had said few attempts to introduce *jazz* innovations into classical, it would be correct, but as is, it's too general).

9) The passage states that Johnson composed all of the following EXCEPT

A. jazz works
B. popular songs
C. symphonic music
D. spirituals
E. blues pieces

EXPLANATION: Though all of the choices are mentioned, **CHOICE D**, spirituals, is correct, since the passage only says Johnson "borrowed" from spirituals for one of his works, which falls short of saying he composed spirituals.

CHOICE A: Jazz works are in the first sentence.

CHOICE B: Popular songs are in the fourth sentence.

CHOICE C: Symphonic music is in the second sentence.

CHOICE E: Blues pieces are in the first sentence.

10) The nearly circular orbits of planets in our solar system led scientists to expect that planets around other stars would also reside in circular orbits. However, most known extrasolar planets reside in highly elongated, not circular, orbits. Why? The best clue comes from comets in our solar system. Comets formed in circular orbits but were gravitationally flung into their present-day elliptical orbits when they ventured too close to planets. Astronomers suspect that pairs of planets also engage in this slingshot activity, leaving them in disturbed, elliptical orbits. If two planets form in close orbits, one will be scattered inward (toward its star), the other outward. They will likely then travel close enough to neighboring planets to disturb their orbits also.

Consider each of the choices separately and select all that apply.

According to the passage, which of the following factors help account for the elliptical shape of the orbits of extrasolar planets?

A. The planets' formation in close proximity to other planets
B. The gravitational influence of planets whose original orbits have been disturbed
C. The gravitational influence of comets

EXPLANATION: **CHOICE A** is correct and is supported by the next-to-last sentence in the passage (which is supporting a previous claim that planets usually have elliptical orbits). **CHOICE B** is also correct and is supported by the last sentence. Choice C is incorrect; no mention of comets' gravitational influence on planets is mentioned (and since comets have only a tiny fraction of the mass of a planet, Choice C is also illogical)!

Consider each of the choices separately and select all that apply.

11) The passage suggests that two planets formed in close orbits that engaged in "slingshot activity" would be likely to

A. Deflect away from each other
B. Change the shape of each other's orbit
C. Affect the orbits of any neighboring planets

EXPLANATION: **CHOICES A and B** are correct and are supported by the next-to-last sentence, which describes the "deflecting away" and "changing each other's orbit." **CHOICE C** is supported by the last sentence; it's "likely" that they'll affect neighboring planets' orbits.

12) Once White stepped down from a political platform, where his daring, _____ speeches provoked baying applause from audiences, he was courteous and considerate even to politicians he had just slandered in the speech.

A. florid[100]
B. defamatory[101]
C. calumnious
D. inveigling
E. timorous[102]
F. diffident[103]

EXPLANATION: Since White "just slandered" politicians, his speeches could be described as "defamatory" and "calumnious," (**CHOICES B** and **C**) both of which mean false statements intended to damage someone's reputation.

CHOICE A: "Florid" ignores the clue about slandering even though a daring speech might well be florid.

CHOICE D: "Inveigling" is negative but doesn't necessarily mean slanderous.

CHOICE E: "Timorous" is way off — he's definitely not timid.

CHOICE F: Likewise, "diffident" is wrong — he's not shy.

13) Clearly the government faced a dilemma: it could hardly _____ trials, especially in the absence of irrefutable evidence, but it also would not welcome, in the midst of war, the scandal that would arise if trials were avoided.

A. be keen on
B. be inclined to
C. arrange
D. dispense with
E. turn its back on
F. credit

---

100 **florid** (adjective): overly decorated; reddish.
Think: **flowered**. The 12-year-old girl's room was **flowered** with hundreds of red-hued decorations — her style was **florid**.

101 **defamatory** (adjective): something that hurts someone's reputation.
Think: **de-fame**. The defamatory Enquirer story will "**de-fame**" that actor; he'll lose his fame.

102 **timorous** (adjective): fearful.
Think: **timid of us**. Tim felt **timid around us** since he was **timorous**.

103 **diffident** (adjective): timid.
Think: **difficult dentures**. I'm **diffident** when in public because I'm self-conscious about how weird my **difficult dentures** look.

EXPLANATION: There's a contrast in the sentence (created by the word "but") between the second part of the sentence, where we learn than the government will have problems if it avoids trials, and the first part of the sentence. **CHOICES A and B** are correct since they both create a first part of the sentence in which the government can't be in favor of trials, which contrasts nicely with the second part.

CHOICE C: "Arrange" would work just fine if it had a synonym in the choices; it doesn't.

CHOICE D: We need a contrast and "dispense with" creates continuation.

CHOICE E: Likewise, "turn its back on" creates continuation.

CHOICE F: There's no support for "crediting" anything here; it creates a weak contrast with avoiding.

14) The hodgepodge[104] nature of local and federal law enforcement and the changing but often still inadequate regulations governing the credit industry make identity theft a particularly _____ crime.

A. unobjectionable
B. viable
C. dubious
D. innocuous[105]
E. uncontrollable
F. intractable

EXPLANATION: The adjectives "hodgepodge" (jumbled) and "inadequate" give us a picture of a credit industry with a security problem. **CHOICES E and F** are correct because identity theft in those circumstances would be difficult to control, or would be "intractable" (stubborn).

CHOICE A: Illogical and unsupported — we'd need really concrete support for identity theft to be "unobjectionable!"

CHOICE B: "Viable" does work but it doesn't have another choice to pair with.

CHOICE C: "Dubious" would contradict the clues that it's actually easy to get away with identity theft.

CHOICE D: Also illogical — we'd need support for it to be "innocuous" (harmless)!

104 **hodgepodge** (noun): a jumble of different things.
Think: **garage**. If your **garage** is anything like mine, it's a **hodgepodge** of tools, old papers, junk, and who knows what else.

105 **innocuous** (adjective): harmless.
Think: **innocent**. My dog will bark at you once you come in but it's **innocent** – he's **innocuous**.

15) Economic competition among nations may lead to new forms of economic protectionism that hearken back to the mercantilism of an earlier age: there are signs today that such protectionism is indeed _____ .

A. evanescent
B. resurgent[106]
C. recrudescent[107]
D. transitory[108]
E. controversial
F. inimical[109]

EXPLANATION: The colon after the word "age" signifies continuation, and **CHOICES B and C** are correct because both continue the claim in the first part of the sentence that competition "may lead to" more protectionism. (Both "resurgent" and "recrudescent" mean "regaining popularity").

CHOICE A: There's no indication protectionism is "evanescent" (short-lived).

CHOICE D: Same thing for "transitory" — no support (even though it pairs with evanescent).

CHOICE E: If anything the suggestion is it's not "controversial."

CHOICE F: This is also the opposite of what's suggested since protectionism is being predicted.

---

106 **resurgence** (noun): a comeback.
Think: **re-surge.** When LL Cool J said, "Don't call it a comeback," he meant that his **re-surging** to the top wasn't a **resurgence**.

107 **recrudescent** (adjective): reactivating.
Think: **recruits sent**. The conflict in Afghanistan must be **recrudescent** since more **recruits are sent** there daily.

108 **transitory** (adjective): existing only briefly.
Think: **transit story**. I found romance on the subway, but alas, our love was **transitory**: it was a public **transit story** that only lasted until her stop.

109 **inimical** (adjective): unfriendly; hostile.
Think: **enemy**. Of course the other beauty contestant hid your lipstick! She's your **enemy**; it's no surprise she'll be **inimical**.

16) According to the conventional view, serfdom in nineteenth-century Russia inhibited economic growth. In this view Russian peasants' status as serfs kept them poor through burdensome taxes in cash, in labor, and in kind; through restrictions on mobility; and through various forms of coercion.[110] Melton, however, argues that serfdom was perfectly compatible with economic growth, because many Russian serfs were able to get around landlords' **rules and regulations**. If serfs could pay for passports, they were usually granted permission to leave the estate. If they could pay the fine, they could establish a separate household; and if they had the resources, they could hire laborers to cultivate the communal lands, while they themselves engaged in trade or worked as migrant laborers in cities.

Consider each of the choices separately and select all that apply.

It can be inferred from the passage that the "rules and regulations" affecting serfdom in Russia involved

A. responsibility for the work needed to accomplish certain defined tasks.
B. restrictions on freedom of movement.
C. limitations on the ability to set up an independent household.

EXPLANATION: First of all, what's up with all the semicolons? The author of this passage seems to think that semicolons can be used in place of commas, which they can't, but hey, it's the real GRE, so let's roll with it. **ALL CHOICES ARE CORRECT**: Choice A is supported by the ability to "hire laborers" in the final sentence, which is continuing to detail the ways serfs could "get around" landlords' rules. Choice B is supported by "restrictions on mobility" in the third line, and Choice C is supported by the "could establish a separate household" in the final sentence.

---

[110] **coerced** (verb): forced.
Think: **cooperate by force**. I didn't want to leave the bar, but the bouncer **coerced** me to **cooperate by using force**.

17) According to the conventional view, serfdom in nineteenth-century Russia inhibited economic growth. In this view Russian peasants' status as serfs kept them poor through burdensome taxes in cash, in labor, and in kind; through restrictions on mobility; and through various forms of coercion. Melton, however, argues that serfdom was perfectly compatible with economic growth, because many Russian serfs were able to get around landlords' rules and regulations. **If serfs could pay for passports, they were usually granted permission to leave the estate**. If they could pay the fine, they could establish a separate household; and if they had the resources, they could hire laborers to cultivate the communal lands, while they themselves engaged in trade or worked as migrant laborers in cities.

Consider each of the choices separately and select all that apply.

The highlighted sentence has which of the following functions in the passage?

A. It provides support for an argument presented in the preceding sentence.
B. It provides evidence that helps undermine a view introduced in the first sentence.
C. It raises a question that the succeeding sentence will resolve.

EXPLANATION: At first glance, the bolded sentence is providing evidence for the claim made in the previous sentence that serfs could often avoid their landlords' restrictions — which supports **CHOICE A**. Serfs' ability to avoid rules undermines the view in the first sentence that serfdom inhibited growth, and since the bolded sentence supports serfs' ability to avoid rules, **CHOICE B** is correct as well. Choice C is incorrect; the bolded sentence doesn't raise a question.

18) The dusky salamander lives only in slow-moving streams where organic debris settles and accumulates. In almost all places in New York State where dusky salamanders used to live, suburban development has cleared uplands and put down asphalt. As a result, rainwater now runs directly into streams, causing increased flow that slows the accumulation of organic sediments. Therefore, it is probably the increased flow caused by suburban development that is responsible for the dusky salamander's virtual disappearance from New York State.

Which of the following, if true, most strongly supports the argument?

A. Since 1980 the suburban population of New York State has grown ten times faster than its urban population.
B. Dusky salamanders have disappeared in the past ten years from some suburban areas of New York State that were originally developed more than a century ago and that have not experienced significant development for decades.
C. The two-line salamander, a species that lives in both slow- and swift-moving waters, continues to thrive in streams in New York State from which dusky salamanders have disappeared.
D. Suburban development in New York State contributes significantly to pollution of local streams with lawn fertilizers that are poisonous to most small aquatic animals.
E. Much of the suburban development in New York State has been occurring in areas that never provided prime habitat for dusky salamanders.

EXPLANATION: The argument is in the final sentence of the passage.
CHOICE C is correct because it removes an objection that the dusky salamander's demise is due to a different reason than the increased flow. If the two-line salamander is doing fine and can handle both slow and fast moving water, then it's less likely that some factor other than water speed is responsible for the disappearance of the dusky salamander.

CHOICE A: This doesn't necessarily mean the argument is strengthened since no necessary connection can be made between population growth rate and increased water flow.

CHOICE B: This doesn't support the argument and in fact kind of contradicts it — if they disappeared long ago, it's less likely increased flow is the reason.

CHOICE D: This introduces another logical reason that the dusky salamander is in decline and therefore weakens, not strengthens, the argument.

CHOICE E: This choice is irrelevant since it doesn't explain the situation in the areas where dusky salamanders DO live.

Questions 19-20 are based on the following passage:

> While the influence of British magazines in shaping public opinion predates the nineteenth century, it was during the 1800s that mass distribution became possible and an explosion in periodical readership occurred, vastly increasing magazines' opinion-shaping powers. The role of magazines as arbiters of nineteenth-century taste is seen in their depictions of the London theater. The magazines accorded some legitimacy to **East End working-class theaters** that mirrored the format of the fashionable West End theaters serving middle- and upper-class audiences. However, the magazines also depicted music halls—which competed for patronage with all theaters—as places where crass entertainment corrupted spectators' taste and morals. Finally, they suggested that popular demand for substandard fare created a market unfriendly to higher expressions of dramatic art.

19) The author of the passage attributes the influence of British periodicals in shaping public opinion in the nineteenth century in part to

A. a growing public interest in reading opinion pieces.
B. an increase in the relative number of readers from the middle and upper classes.
C. changes in the way in which magazines were distributed.
D. magazines' increased coverage of theater and popular entertainment.
E. changes in magazine format that attracted a wider readership.

EXPLANATION: **CHOICE C** is correct. The first sentence of the passage makes the claim that the "explosion" in readership "vastly" increased the magazines' ability to shape opinion — which is certainly a "change in the way magazines were distributed."

CHOICE A: We don't have support that the increase described was in reading opinion pieces. In fact, the statement that the magazines' influence "predates the nineteenth century" suggests the interest may have been constant.

CHOICE B: There's no information about which classes read the magazines.

CHOICE D: Nor is there mention of an increase in coverage of entertainment.

CHOICE E: No change in format is discussed.

20) The author of the passage mentions "East End working-class theaters" primarily in order to

A. illustrate a point about the ability of magazines to sway public opinion.
B. contrast the kinds of entertainment presented in East End and West End theaters.
C. make a point about how spectators' tastes influenced the offerings at different kinds of theaters.
D. explain how magazines chose which kinds of entertainment to cover.
E. identify factors that helped make certain theaters fashionable.

EXPLANATION: Looking at the sentence before the sentence with the bolded words (The role of magazines...London theater), we can see that the relationship between that sentence and the sentence with the bolded text is one of claim and support. The claim (that magazines' role as arbiters of taste is seen in their depictions of the theater) is supported by the evidence that these magazines "afforded some legitimacy to East-End working class theaters." **CHOICE A** is correct; the bolded text is supporting the point about the magazines being taste-makers.

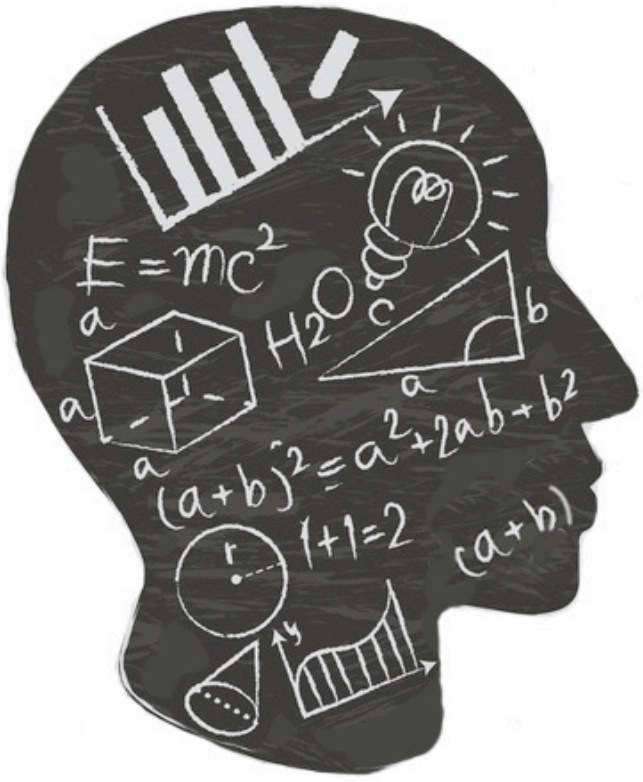
CHOICE B: The discussion isn't really about contrasting the East and West End theaters; it's about supporting the claim that magazines shaped opinion.

CHOICE C: There's no mention that spectators had anything to do with influencing what kinds of entertainment theaters showed.

CHOICE D: There's no mention of the magazines' decision process about what to cover.

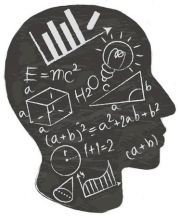
CHOICE E: The East End theaters are contrasted with the fashionable West End theaters, so it's unlikely the East End ones are mentioned as an example of fashion (and the factors influencing fashion aren't discussed).

.

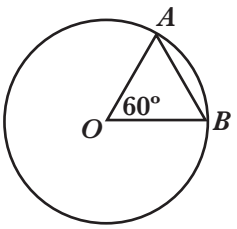


PowerPrep Test 1

Quantitative



1)



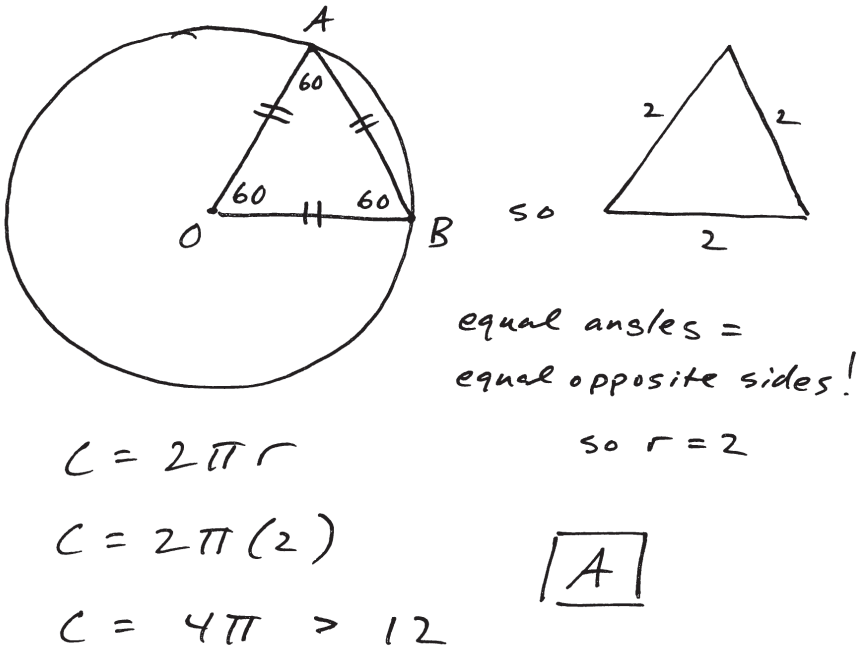
O is the center of the circle, and the perimeter of DAOB is 6.

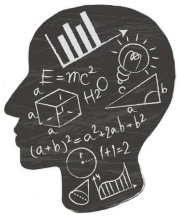
Quantity A	Quantity B
The circumference of the circle	**12**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: One important principle of circles is that "all radii are equal." Here, we have two radii, OA and OB. If they are equal then so are their opposite angles, meaning that angles AOB and ABO are equal and thus both 60 degrees, meaning that the remaining angle is also 60 degrees (180 degrees in a triangle).

Now, we have an equilateral triangle (all sides equal). Given the fact that the perimeter is 6, we can divide 6 by 3 sides to get a radius of 2, making **CHOICE A** correct.





2) A certain recipe requires $3/2$ cups of sugar and makes 2 dozen cookies. (1 dozen = 12)

Quantity A	Quantity B
The amount of sugar required for the same recipe to make 30 cookies	**2 cups**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: This is the type of question that can easily take forever to solve if you're not solid on your fraction and ratio fundamentals. However, if you're confident and prepared, then a question like this one should come easily.

3/2 = 1.5 so 1.5 cups of sugar for 24 cookies. I suggest that you multiply both sides of that fraction by 2:3 cups of sugar for 48 cookies. How many cups of sugar for 30 cookies? Let's set up a simple proportion and find out: cups/sugar = 3/48 = *x*/30. Cross multiply. 48*x* = 90, so *x* < 2, making **CHOICE B** correct.

$$\frac{\frac{3}{2}\ \text{cups sugar}}{24\ \text{cookies}} = \frac{X\ \text{cups sugar}}{30\ \text{cookies}}$$

cross multiply!

$$\frac{30}{1}\cdot\frac{3}{2} = 24x$$

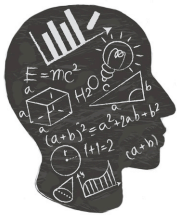
$$\left[\frac{90}{2} = 24x\right]\cdot 2$$

$$[90 = 48x] \div 48$$

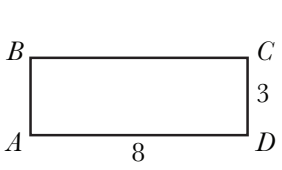
$$x = \frac{90}{48} < 2$$

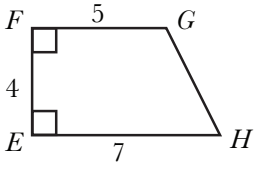
TEST ON CALC.

[B]



3)





Quantity A	Quantity B
The area of rectangular region ABCD	**The area of trapezoidal region EFGH**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Area of a rectangle = (base)(height).
Area of ABCD = 8 x 3 = 24

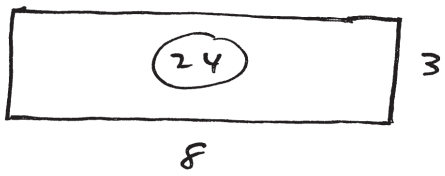
Split trapezoidal region EFGH into a 5 x 4 rectangle (area 20) and a 2 x 4 triangle.

Area of a triangle = bh/2 = 4. 20 + 4 = 24.

Or, area of a trapezoid = ½ (base 1 + base 2) * height

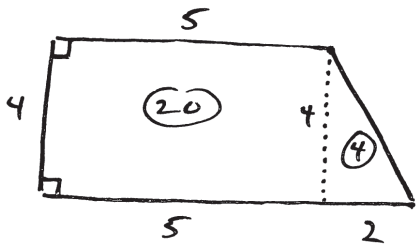
½ (5 + 7) 4 = ½ (12) 4 = 24.

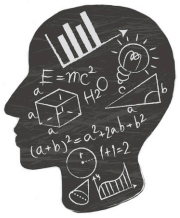
Answer: CHOICE C



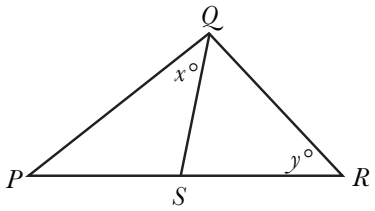
24 = 20 + 4

C





4)



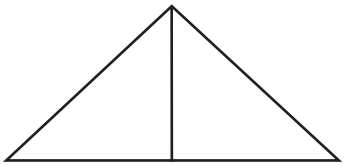
$PS=SR$

Quantity A	Quantity B
x	y

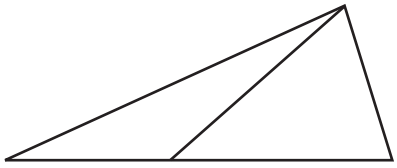
A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: This one is tough because it doesn't have a lot of numbers. It is certainly true from the drawing that the measure of angle y looks greater than the measure of angle *x*. But remember that *on the GRE, figures are not necessarily drawn to scale*! Thus, it is better to try to re-draw questions like these in order to exaggerate the differences, while still keeping the requirements of the question intact.

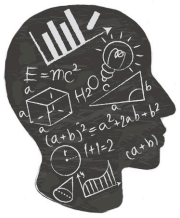
For example, it is easy to draw a version of this where $x = y$ (just make *QS* perpendicular to *PR*). In that case, the answer would be Choice C. Cross off Choices A and B.



Then, it would be easy to make another triangle where the apex is shifted even further over to the right. In this case, *y* would be far greater than *x* (B).



B and C = **CHOICE D**.



5) $6 < x < 7$

$y = 8$

Quantity A	Quantity B
x/y	**0.85**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: *x* is between 6 and 7, and *y* is a constant equal to 8. We are comparing *x/y* to 0.85, so naturally it makes sense that we would test the low end and the high end of *x*'s range.

Even though *x* is technically greater than 6, it makes sense to test 6 because *x* could be *just barely larger* than 6, i.e, 6.01, and it makes sense to test 7 because *x* could be *just barely smaller* than 7 as well. Of course we must keep in mind that 6 and 7 are not valid values, but they help to establish the exact boundaries of the term (*x/y*).

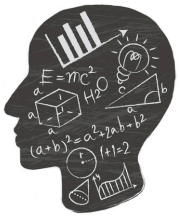
6/8 = .75 answer = B
7/8 = .875 answer = A (notice the "wiggle room" between .85 and .875)

A and B means **CHOICE D** is correct.

The mistake that many people make is not testing numbers that are close enough to the high or low range, like 6.25 and 6.75. If you are hesitant about the using the "boundary" method I described, then you could simply use the calculator and try *x* values of 6.01 and 6.99, which would also work.

6.01/8 = .751, answer = B
6.99/8 = .874, answer = A

Finding A in one instance, and B in another instance, means that **CHOICE D** is our correct answer.



6) The average (arithmetic mean) of 100 measurements is 23, and the average of 50 additional measurements is 27.

Quantity A	Quantity B
The average of the 150 measurements	**25**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Average = Total / # of things. Important to memorize this one. So 23 = 1st total/100, 1st total = 2300. 27 = 2nd total/50, 1350 = 2nd total. Average of both = total of both / # of both. Average of both = (2300+1350) / 150, 3650/150 = 24.3333 (use calculator).

24.33 < 25 so **CHOICE B** is correct.

$$\text{Average} = \frac{\text{total}}{\#\text{ of things}}$$

$$23 = \frac{\text{total}}{100}, \quad 2300 = \text{total}_1$$

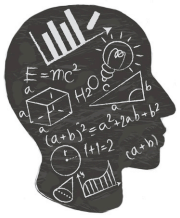
$$27 = \frac{\text{total}}{50}, \quad 1350 = \text{total}_2$$

$$? = \frac{\text{total}_1 + \text{total}_2}{100+50} =$$

USE CALC $\quad \frac{2300+1350}{150} = 24.\overline{3}$

$$24.\overline{3} < 25$$

$$\boxed{B}$$



7) List L consists of the numbers 1, $\sqrt{2}$, x, and x^2, where $x > 0$, and the range of the numbers in list L is 4.

Quantity A	Quantity B
x	2

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: If the range of the numbers in the list is 4, and $x > 0$, then x^2 must be equal to 5 because range = high-low, so $x^2 - 1 = 4$, $x^2 = 5$, $x = \sqrt{5}$ = between 2 and 3. 2+ > 2, so **CHOICE A**.

List L: $[1, \sqrt{2}, x, x^2]$ → $x > 0$

↳ must be positive.

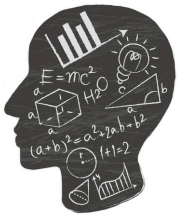
Range = High − Low = 4

$[x^2 - 1 = 4] + 1$

$[x^2 = 5] \sqrt{\ }$

$x = \sqrt{5} > 2$

[A]



8) One of the roots of the equation $x^2 + kx - 6 = 0$ is 3, and k is a constant.

Quantity A	Quantity B
The value of *k*	**-1**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: A "root" of an equation is a number that makes the equation true. So substituting 3 for x results in: $3^2 + 3k - 6 = 0$. Solving for k results in: $9 + 3k - 6 = 0$. $3k = -3$. $k = -1$, so the answer is **CHOICE C**

$x^2 + kx - 6 = 0$

3 is a root, which means that inputting 3 should output zero.

In other words, $(x-3)(\text{something}) = x^2+kx-6$

$x^2 + kx - 6 = (x-3)(x+2) =$

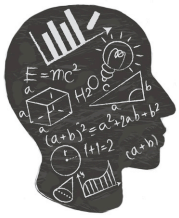
$x^2 + 2x - 3x - 6 =$

$x^2 - x - 6 =$

$x^2 + kx - 6$

so $k = -1$

C



9) If x and y are the tens digit and the units digit, respectively, of the product 725,278 x 67,066, what is the value of $x + y$?

A. 12
B. 10
C. 8
D. 6
E. 4

EXPLANATION: The trick here is to realize that for the last two digits of a large product, all we have to test is the last two digits of each number being multiplied. 725,278 x 67,066 is too big of a number for the GRE calculator to give you a precise answer, so instead, try 78 x 66, which equals 5148. The last two digits x and y are 4 and 8, so the value of $x + y = 4 + 8 = 12$, **CHOICE A**.

slope-intercept form: $y = mx + b$

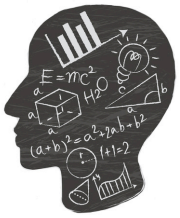
m ↓ slope b ↓ y-intercept

$3x - 2y = 8$

$[3x - 8 = 2y] \div 2$

$y = \frac{3}{2}x - 4$

D



10) In the *xy*-plane, what is the slope of the line whose equation is $3x - 2y = 8$?

A. -4
B. - 8/3
C. 2/3
D. 3/2
E. 2

EXPLANATION: You're going to want to take a time machine back to 9th grade and remind yourself of the standard equation of a line, $y = mx + b$. m = slope and b = y-intercept.

$3x - 2y = 8$, $2y = 3x - 8$, $y = (3/2)x - (8/3)$ so $m = 3/2$. **CHOICE D**.

11) If p is a negative number and $0 < s < |p|$, which of the following must also be a negative number?

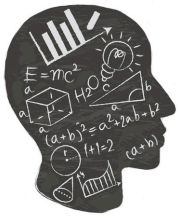
A. $(p + s)^2$
B. $(p - s)^2$
C. $(s - p)^2$
D. $p^2 - s^2$
E. $s^2 - p^2$

EXPLANATION: First of all, any number written in the form x^2 has to be positive. Hence, you can cross off A, B and C right away, and we're down to D and E.

When absolute value is involved, everything becomes positive, so it's sometimes helpful to discuss the magnitudes of numbers instead of just "greater than, less than." For example, -4 is less than 2, but -4 has a greater magnitude (positive 4) since, like absolute value, there is no such thing as a negative magnitude. So p is less than s, because s is greater than zero and thus positive, and p is negative. But the magnitude of p is greater than s.

So, if the magnitude of p is greater than that of x, then p^2 will always be greater than x^2, because numbers taken to even powers are always positive. **CHOICE E**.

If you're confused by the concept, then just **MAKE IT TRUE** by inserting real numbers (such as $s = 2$ and $p = -4$) and use process of elimination.



12)

$$10, 10, 10, 10, 8, 8, 8, 8, 12, 12, 11, y$$

The twelve numbers shown represent the ages, in years, of the 12 houses on a certain block. What is the median age, in years, of the twelve houses on the block?

_____ years

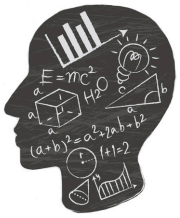
EXPLANATION: In order to calculate median (the middle term / average of the middle terms), you must first put the numbers in chronological order. For now, we will leave y out because we don't know its value. 8,8,8,8,10,10,10,10,11,12,12. OK, that's 11 numbers right there, and as it stands, 10 is the obvious median (5 numbers on the left, 5 numbers on the right).

If you draw those numbers out and circle the median, you will see that the 10 that is circled also has 10s to the right and left of it. No matter what value of *y* is, it cannot shift the median to the left or the right by more than one spot. Hence, the answer is **10**.

13) Of the 750 participants in a professional meeting, 450 are female and ½ of the female and ¼ of the male participants are less than thirty years old. If one of the participants will be randomly selected to receive a prize, what is the probability that the person selected will be less than thirty years old?

A. ⅛
B. ⅓
C. ⅜
D. ⅖
E. ¾

EXPLANATION: If there are 750 participants and 450 are female, then 300 must be male. "Of" = multiply. If ½ of the female participants are less than 30, then ½ of 450= 225 of the female participants are less than 30. If ¼ of the male participants are less than 30, than ¼ of 300 = 75. Probability = total number of desired outcomes / total number of possible outcomes = (225 + 75) / 750 = 300/750 = .4 = ⅖. **CHOICE D**.

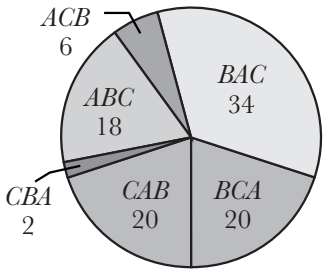


Questions 14-16 are based on the following data.

14) In a survey, 100 travel agents each ranked Airlines A, B, and C in order of preference. Each of the 100 travel agents also rated the three airlines in five categories on a scale of 1 through 10, with 10 being the best rating.

The sum of the five average ratings was calculated for each of the three airlines. The airline with the least sum was ranked 1st by what fraction of the travel agents?

DISTRIBUTION OF RANKINGS



NOTE:
The notatation ACB means *A* ranked 1st, *C* ranked 2nd, and *B* ranked 3rd.

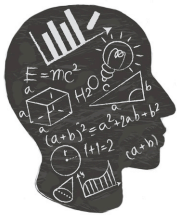
AVERAGE RATING

Category	Airline *A*	*B*	*C*
Convenience	5.1	8.0	4.3
Friendliness	5.0	5.5	5.4
Price	5.0	6.4	3.5
Promptness	6.5	6.9	4.1
Reliability	7.8	7.5	4.9

$$\frac{\square}{\square}$$

EXPLANATION: When you're dealing with lots of numbers and tables, make sure you use estimation instead of reaching directly for the on-screen calculator. Lots of students will begin this question by adding up the totals for airlines A, B, and C, but a quick glance at the table on the right is enough to tell us that airline C is in fact the airline with the least sum.

Next, we can look at the circle graph to see how many agents ranked airline C first. 20+2 = 22. Total number of travel agents (no need to calculate — it's provided in the question) is 100. **Answer: 22/100**.



15) Airline B's average rating for convenience was approximately what percent greater than Airline A's average rating for convenience?

A. 30%
B. 36%
C. 40%
D. 57%
E. 64%

EXPLANATION: Airline B's rating for convenience was 8.0. Airline A's rating for convenience was 5.1.

Now the tricky part, to figure out what percent greater than 5.1 is 8.0. For this we use the percent change equation: (difference/original) x 100. It's important to define "original" as "the number being compared to," or (perhaps more simply) "the number that comes after the word "than."

Difference = 8-5.1 = 2.9. Original = 5.1. D/O = 2.9/5.1 = .57, .57 x 100 = 57%. **CHOICE D**.

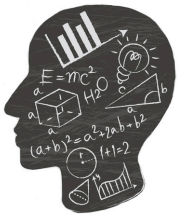
$$\text{Percent change} = \left(\frac{\text{difference}}{\text{original}}\right)(100)$$

$$= \left(\frac{8-5.1}{5.1}\right)(100)$$

$$= \left(\frac{2.9}{5.1}\right)(100) = 56.9\%$$

"approximately"

D



16) If each of the average ratings was the arithmetic mean of the ratings given l 100 travel agents, approximately how much greater was the total of the ratii given to all three airlines for reliability than that for promptness?

A. 25
B. 50
C. 125
D. 250
E. 500

EXPLANATION: The question tells us that the averages were calculated using 100 travel agents. Again, average = total / # of things, so just multiply the averages by the number of travel agents (100) to get the totals of the ratings.

Reliability = 7.8(100) + 7.5(100) + 4.9(100) = 780 + 750 + 490 = 2,020
Promptness = 6.5(100) + 6.9(100) + 4.1(100) = 650 + 690 + 410 = 1750

2,020-1,750 = 270. Notice that the question says "approximately." **CHOICE D** is correct.

$$\text{Average} = \frac{\text{total}}{\#\text{ of things}}$$

$$\text{Reliability} = 7.8 + 7.5 + 4.9 = \frac{\text{total}}{100}$$

$$\left[20.2 = \frac{\text{total}}{100}\right] \cdot 100$$

$$2020 = \text{total}$$

$$\text{Promptness} = 6.5 + 6.9 + 4.1 = \frac{\text{total}}{100}$$

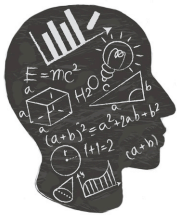
$$\left[17.5 = \frac{\text{total}}{100}\right] \cdot 100$$

$$1750 = \text{total}$$

$$\begin{array}{r} 2{,}020 \\ -\ 1{,}750 \\ \hline 270 \end{array}$$

"approximately"

D



17 A developer has land that has x feet of lake frontage. The land is to be subdivided into lots, each of which is to have either 80 feet or 100 feet of lake frontage. If $\frac{1}{9}$ of the lots are to have 80 feet of frontage each and the remaining 40 lots are to have 100 feet of frontage each, what is the value of x?

A. 400
B. 3,200
C. 3,700
D. 4,400
E. 4,760

EXPLANATION: The key phrase here is "$\frac{1}{9}$ of the lots are to have 80 feet of frontage each and the remaining 40 lots…," which tells you that 40 lots = $\frac{8}{9}$ of the lots. From that, $(\frac{8}{9})x = 40$, $x = 45$, so there are 45 lots total. $\frac{1}{9}$ of 45 is 5, so (5 lots) x 80 feet/lot = 400 feet. The remaining 40 lots are 100 feet each. Repeat the same process, no units necessary this time. 40 x 100 = 4000. Add them together. 400 + 4,000 = 4,400. **CHOICE D** is correct.

$$\left[40 \text{ lots} = \frac{8}{9}(\#\text{ lots})\right] \cdot 9$$

$$\left[360 \text{ lots} = 8(\#\text{ lots})\right] \div 8$$

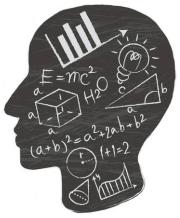
$$45 \text{ lots} = \#\text{ of lots}$$

multiply!

$$\frac{1}{9} \text{ of } 45 = \frac{1}{9} \cdot \frac{45}{1} = \left(5 \text{ lots}\right)\left(\frac{80 \text{ ft}}{\text{lot}}\right) = 400 \text{ feet}$$

$$\frac{8}{9} \text{ of } 45 = \left(\frac{40 \text{ lots}}{1}\right)\left(\frac{100 \text{ ft}}{\text{lot}}\right) = 4{,}000 \text{ feet}$$

$$\begin{array}{r} 4000 \\ +\ 400 \\ \hline 4{,}400 \end{array}$$ [D]



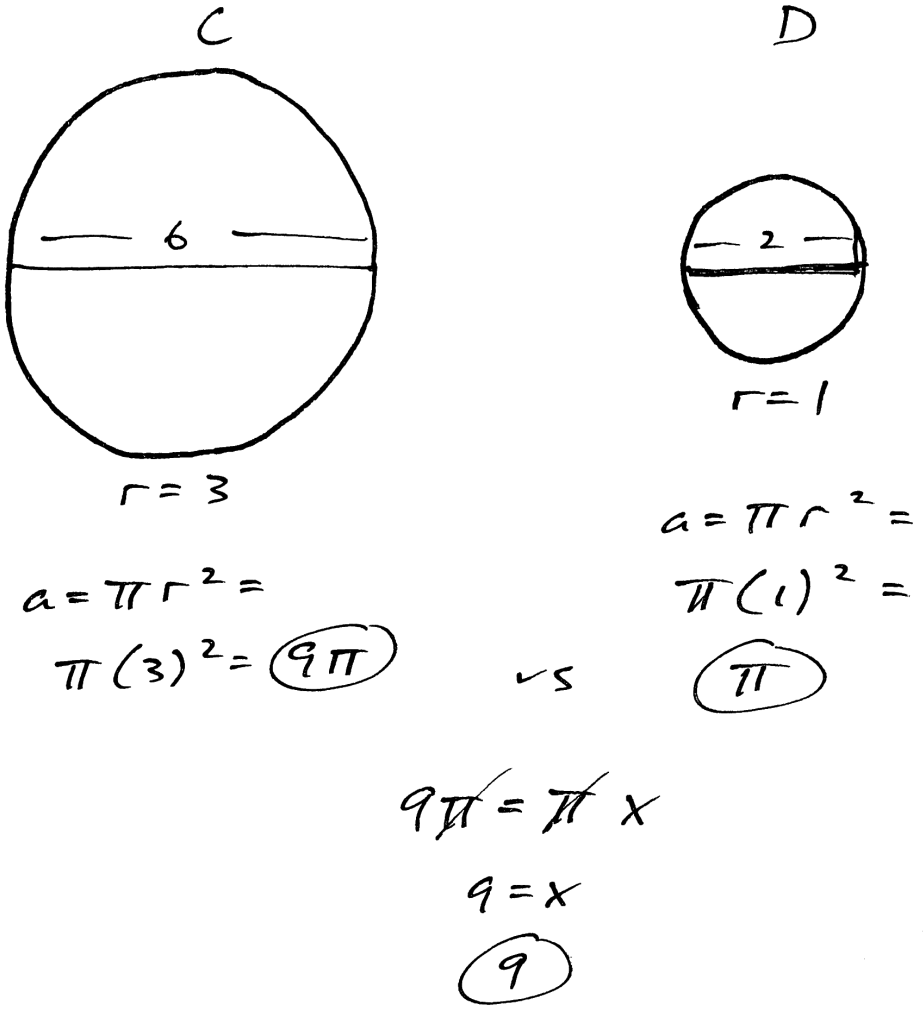
18) If the diameter of circle C is 3 times the diameter of circle D, then the area of circle C is how many times the area of circle D ?

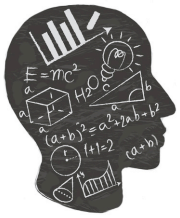
EXPLANATION: It's easy enough to just "make this true" (a favorite catchphrase of mine on the Quant section) by simply picking numbers that work (show).

Circle C = Diameter 6 = Radius 3. Area = $\pi r^2 = \pi(3)^2 = 9\pi$
Circle D = Diameter 2 = Radius 1. Area = $\pi r^2 = \pi(1)^2 = \pi$

So the area of circle C (9π) is **9** times greater than that of Circle D.

But if you're confident in your math principles, then you can also do this one in your head. Diameter is directly proportional to radius, so the radius of circle C is also 3 times that of Circle D. However, area is always in square units, unlike diameter and radius. So if the radius is 3 times more, than the area of circle C is 3^2 – 9 times that of circle D.





19) Last year Kate spent between ¼ and ⅓ of her gross income on her mortgage payments. If Kate spent $13,470 on her mortgage payments last year, which of the following could have been her gross income last year?

Indicate *all* such gross incomes.

A. $40,200
B. $43,350
C. $47,256
D. $51,996
E. $53,808

EXPLANATION: This one's easy. We just have to calculate ¼ of x = $13,470 and ⅓ of x = $13,470. The correct answers are anything that lies between.

Remember that "of" means "multiply." ¼ x = $13,470, x = $53,880.

⅓ x = $13,470 , x = $40,410.

The answers between $40,410 and $53,880 are **CHOICES B,C,D,** and **E**.

Or try it this way:

$$\left[\frac{1}{4}g < k < \frac{1}{3}g\right] \cdot 12$$

$$3g < 12k < 4g$$

$$3g < 12(13{,}470) < 4g$$

$$[3g < [161{,}640] < 4g]$$ break into 2 separate inequalities.

$$[3g < 161{,}640] \div 3$$

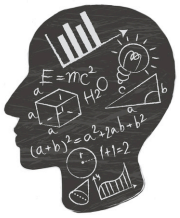
$$g < 53{,}880$$

$$[161{,}640 < 4g] \div 4$$

$$40{,}410 < g$$

combined: $40{,}410 < g < 53{,}880$

B, C, D, E



20) The quantities S and T are positive and are related by the equation $S=K/T$ where k is a constant. If the value of S increases by 50 percent, then the value of T decreases by what percent?

A. 25%
B. 33 and ⅓%
C. 50%
D. 66 and ⅓%
E. 75%

EXPLANATION: Obviously, don't just assume that the answer is C. Test it. *S = k / T. Make it true.* 5 = 15/3 so *k* = 15. 1.5 (5) = 15/*x*, 7.5*x* = 15, *x* = 2. *X went from 3 to 2 which is a 33% decrease. % change = (difference / original)* x 100 = ((3 – 2) /3) x 100 = (1/3) x (100) = 33% (**CHOICE B**).

Or, try it this way:

S, T = pos. k = constant

MAKE IT TRUE: pick one value for k and two values for S_1 and S_2 that are 50 percent apart.

$S = \frac{k}{t}$ 10 to 15 = 50% increase

so $S_1 = 10$, $10 = \frac{k}{t}$, $10 = \frac{30}{t}$, $t = 3$

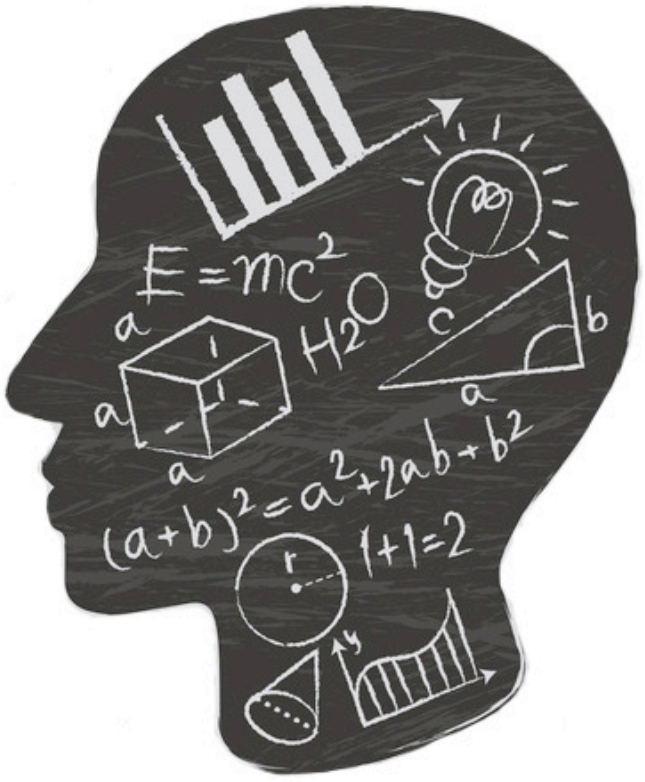
$S_2 = 15$, $15 = \frac{k}{t}$, $15 = \frac{30}{t}$, $t = 2$

$k = 30$

T increases by what percent?

3 to 2 $\Rightarrow \left(\frac{\text{difference}}{\text{original}}\right)(100) = \left(\frac{3-2}{3}\right)(100) = \frac{1}{3}(100) = 33.3\%$

| **NOTES**

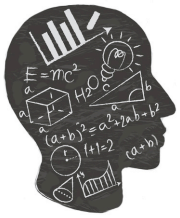


PowerPrep Test 1

Quantitative

Easy Version

(0-6 correct on Section 1)



1) **List A: 0, 5, 10, 15, 20**
List B: 5, 10, 15, 20, 25

Quantity A	Quantity B
The standard deviation of the numbers in List A	**The standard deviation of the numbers in List B**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Technically, the GRE requires you to know standard deviation. In reality, however, you really only need to understand the basic concepts behind standard deviation, because the equation for standard deviation is a big mess.

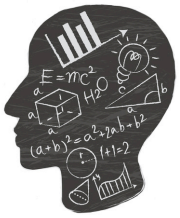
Standard deviation is basically a measure of *how far away the average term in a list is from the average value of a term in that list*. I know, that's confusing. But think of it this way: if the range (high term — low term) of a list of numbers on the GRE is the same, then the standard deviation is most likely the same as well.

I want to stress that range (high term — low term) and standard deviation *are not the same thing*. However, if the range is the same, then the standard deviation is also the same, so long as the numbers are spread out equally in both lists.

If you want to really geek out on this, then here is how to calculate standard deviation exactly:

1. Determine the Mean. (Mean = Average = Total / # of things)
2. For each number, subtract the mean and square the result.
3. Determine the mean of all the squared differences.
4. Take the root of your answer. That is the standard deviation.

If you really, really, want to geek out on this, then you can read about the differences between the "*n* version" (less common) and "*n*–1" (default) version here: N vs N–1 when calculating Standard Deviation
http://duramecho.com/Misc/WhyMinusOneInSd.html



There are three rather easy standard deviation questions included in the *Official Guide to the GRE, 2nd Edition,* including one (#9 page 401) that requires memorization of the 34, 14, 2 Rule http://www.sparknotes.com/testprep/books/gre/chapter2section4.rhtml (check out pages 107, 138-141, 149, 174, 273-275, 285-291, 296-300, 331, 401, 460 and 535 for mentions of standard deviation). However, I've yet to see a question on the actual GRE where using the formula for Standard Deviation was necessary — in fact, the formula itself nowhere to be found anywhere in the book. So I wouldn't worry much about having to memorize it exactly unless you're going for a perfect 170 on math and don't want to take any chances. In which case, you probably already know the formula.

Anyway, here's the easy solution:

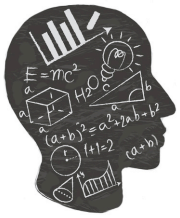
Range of list A (high - low) = 20 – 0 = 20

Range of list B (high - low) = 25 – 5 = 20

The two lists have the same ranges, and the numbers in each list are spread out exactly the same: consecutive multiples of 5. Thus we can conclude that their standard deviations are the same.

Think of it another way. Standard deviation is a measure of the spacing (from the average term) of numbers in a list, **regardless of the value of the average**. Well, if all the numbers in List A stood up at the same time and took five steps to the right on the number line, then they would create List B. Yes, the numbers in List B are greater, which might tempt some to choose Choice B, but the *spacing* of List B is exactly the same as that of List A.

The answer is **CHOICE C** — the standard deviations of both lists are equal.



2) $(x - 2y)(x + 2y) = 4$

Quantity A	Quantity B
$x^2 - 4y^2$	8

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Use Quantity A as your inspiration: since the terms in Quantity A are squared, this is a good sign that you are going to want to multiply the quantities above using the FOIL (first, outer, inner, last) method, in order to compare the quantities accurately.

$(x - 2y)(x + 2y) = x^2 + 2xy - 2xy - 4y^2 = x^2 - 4y^2 = 4$

$4 < 8$, hence the answer is **CHOICE B**.

FOIL

$(x - 2y)(x + 2y) = x^2 + 2yx - 2yx - 4y^2$

$4 = x^2 - 4y^2$

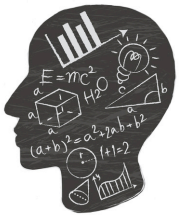
$4 < 8$ B

DIFFERENCE OF SQUARES FORMULA / QUADRATIC IDENTITIES

$a^2 - b^2 = (a+b)(a-b)$

$a^2 + 2ab + b^2 = (a+b)^2$

$a^2 - 2ab + b^2 = (a-b)^2$



3) A power station is located on the boundary of a square region that measures 10 miles on each side. Three substations are located inside the square region.

Quantity A	Quantity B
The sum of the distances from the power station to each of the substations	**30 miles**

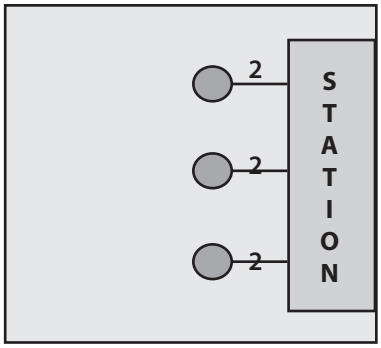
A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

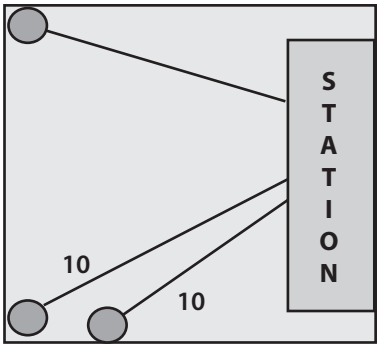
EXPLANATION: If the question does not provide a visual, then you should draw it yourself. Draw a square with sides 10 (area 100).

It's always helpful to take into account the value you're comparing to. In this case the value is 30 miles. Meaning that we want to see if we can get more than one of the following answers: A, B, or C. If we can get two or more of those to work, then the answer is Choice D.

Could the sum of the distances from the power stations to each of the substations be less than 30 miles? Sure, of course it could. So long as all three substations, we could fit dozens of power stations, never mind just three. For example, if the stations were just two miles apart from each other, then the sum would be 6. 6 < 30 so mark Choice B and cross off Choices A and C.

The circles represent substations.

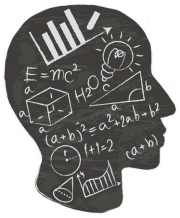




Now, try to make either A or C work. Let's try C, since it's cleaner. We can make all the distances 10 (this is possible because the diagonal of a 10 x 10 cube is $10\sqrt{2} = 14.12$ because of the 45/45/90 ratio ($x,x,x\sqrt{2}$).

We could also make A true by making the distances 11, 12, 13 or 14. *Please note that the question does not indicate that the power station is located on the* ***entire*** *boundary of the square, which would change the answer to the question.*

Both answers B and C are possible, hence the answer is **CHOICE D**.



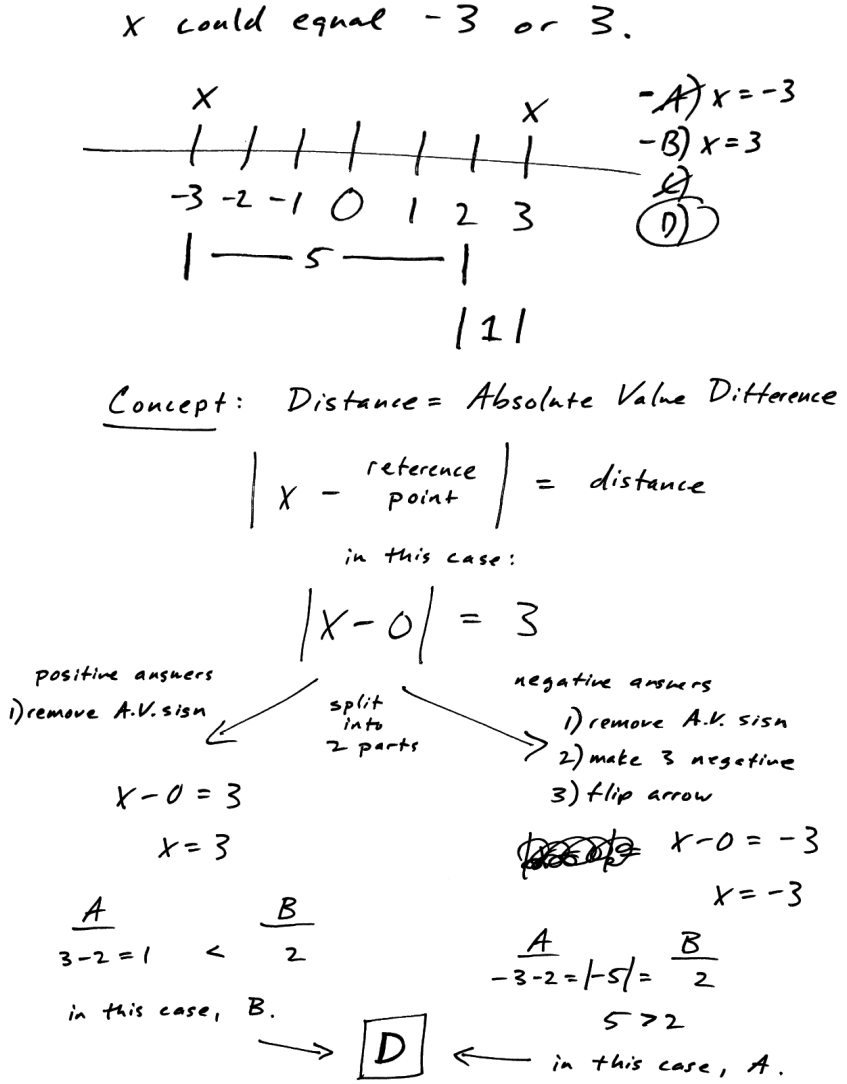
4) On the number line, the distance between x and 0 is 3.

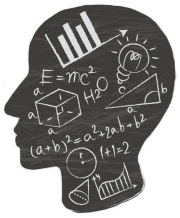
Quantity A	Quantity B
The distance between x and 2 on the number line	**2**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

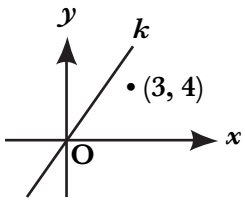
EXPLANATION: "The distance between x and 2 on the number line" obviously depends on the value of x.

If $x = 4$ or 0, then the answer would be C. Mark A, then cross off A and B. Now, try to make either A or B true. If $x = 5$, then the answer would be A. Thus, the answer is **CHOICE D**.





5)



Quantity A	Quantity B
The slope of line *k*	**1**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: There are many ways to define ***slope***, but the easiest way is "rise over run" — that is, how much does the line go up (or down) for every unit it goes across, expressed as a fraction?

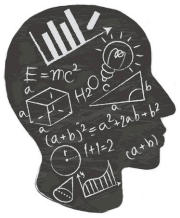
In order to find the slope of a line, then we must have at least two points on that line. Only one point is provided (3,4) but we must also note that this point is not located on line *k*. The other point is the Origin (O) which is of course located at point (0,0).

Rise = 4

Run = 3

Thus the slope of the line that passes through the origin and (4,3) is 4/3 or 1.33. Since line k has an even higher y coordinate than 4 at $x = 3$, then we can trust that the slope of line *k* is greater than 4/3. $4/3 > 1$, thus the answer is **CHOICE A**.

$$\text{slope} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{\text{rise}}{\text{run}} = \frac{4}{3}$$ [A]



6) The probability that both events E and F will occur is 0.42.

Quantity A	Quantity B
The probability that event E will occur	**0.58**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: To find the probability that both events will occur, you need to find the product of the individual probabilities. In other words, p(E) * p(F) = .42. Logically, there are many different possibilities for what p(E) and p(F) could be. A good place to start seeing what p(E) could be is to use the value for Quantity B, .58. Is there any number that, when multiplied by .58, equals .42? Sure. Check by solving (.58)x = .42, x = .72. Is there another number we could use? Sure - how about .57? (.57)x = .42, x = .74. Since we found an acceptable value for p(E) equal to and different from Quantity B, the answer is **CHOICE D**. Also note that the values for p(E) and p(F) must both be between 0 and 1; the probability of an event can't be higher than 100%.

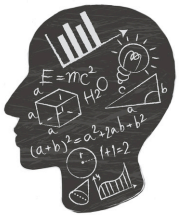
"both" probabilities = multiply!

.42 < .58 (E)(F) = .42 → 1 > .58 so in this case, A.

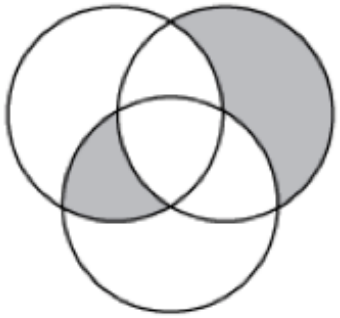
in this case, B. (1)(.42) = .42

(.42)(1) = .42

~~A~~
B
~~C~~
D



7)

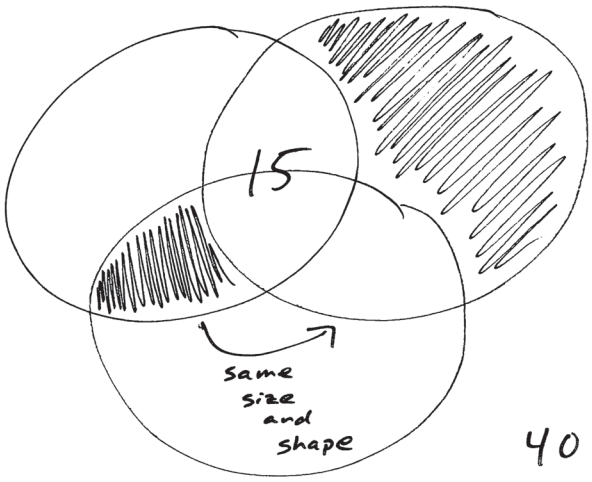


The area of each of the three circular regions in the figure shown is 40, and the area of the intersection of any two of the circular regions is 15.

Quantity A	Quantity B
The sum of the areas of the shaded regions	**30**

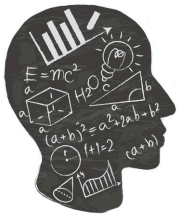
A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Draw it. 25 < 30, thus the answer is **CHOICE B**.



Area of each circle = 40

40 - 15 = 25



8) How many three-digit positive integers are there such that the three digits are 3, 4 and 8?

A. 3
B. 6
C. 9
D. 15
E. 96

EXPLANATION: This problem is a permutation, since we want to count each possibility. 348 and 843 are two different integers. An easy way to find the total number of integers is to multiply the possibilities for the first digit by the possibilities for the 2nd digit by the possibilities for the 3rd digit. There are 3 options for the first digit (3, 4, and 8). For the 2nd digit, there are only 2 options, since the 1st digit used one of those numbers. And for the 3rd digit, there is only one option. The answer is found by multiplying the possibilities for each digit together: 3 * 2 * 1 = 6, **CHOICE B.**

348
384
438
483
834
843

6 ways!

method #1

□ = slots

#in box = #choices for that slot

□·□·□ = 6

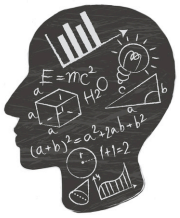
method #2

or "3 pick 3" =

$\frac{3!}{(3-3)!} = \frac{3 \cdot 2}{1} = 6$

(0! = 1)

method #3



9) A teacher took a container filled with 16 liters of water to a school picnic. After several students had taken water from the container, the container had 14 liters of water left. What was the percent decrease in the amount of water in the container?

A. 6.25%
B. 8.00%
C. 12.50%
D. 14.30%
E. 87.50%

EXPLANATION: Find the percent decrease by dividing the difference in the two amounts by the original amount, then multiplying by 100. The difference is 16 – 14 = 2, and the original amount is 16, so 2/16 * 100 = **CHOICE C**, 12.5%.

$$\%\ \text{change} = \left(\frac{\text{difference}}{\text{original}}\right)(100)$$

$$= \left(\frac{16-14}{16}\right)(100) = \left(\frac{2}{16}\right)(100) = 12.5\%$$

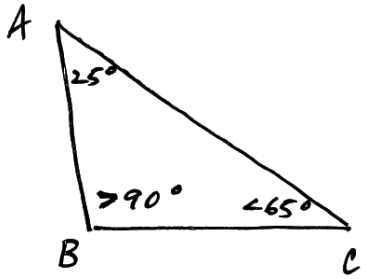
CALC C

10) In triangle ABC, the measure of angle A is 25 degrees and the measure of angle B is greater than 90 degrees. Which of the following could be the measure of angle C?

Indicate ***all*** such measures.

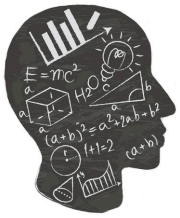
A. 12 degrees
B. 15 degrees
C. 45 degrees
D. 50 degrees
E. 70 degrees

EXPLANATION: A triangle's interior angles must add up to 180 degrees. If we test something just slightly higher than 90 for angle B, we can probably see the range of angle measures that angle C could have. If B is 91 degrees, then C would be 64 degrees. Therefore, **CHOICES A, B, C,** and **D** would all work. Choice E fails, since 91 + 70 + 25 > 180.



180
−90
90
−25
65 so C < 65

A, B, C, D



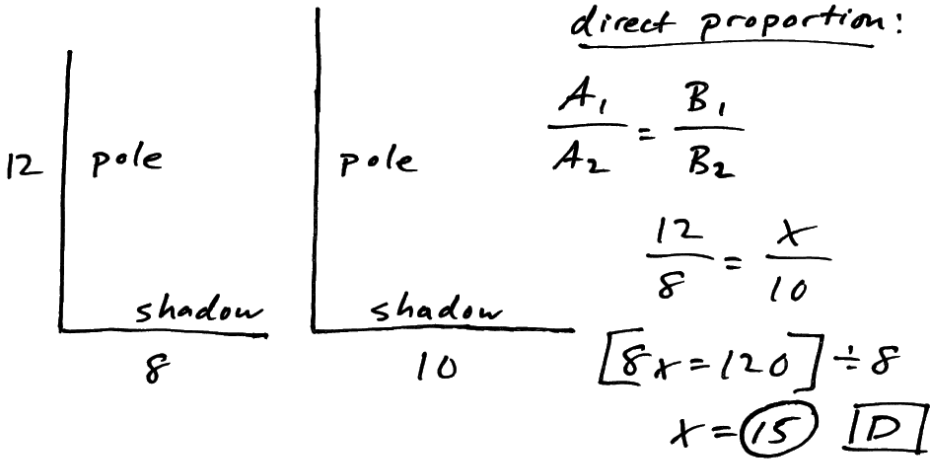
11) In the sunshine, an upright pole 12 feet tall is casting a shadow 8 feet long. At the same time, a nearby upright pole is casting a shadow 10 feet long. If the lengths of the shadows are proportional to the heights of the poles, what is the height, in feet, of the taller pole?

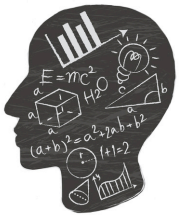
A. 10
B. 12
C. 14
D. 15
E. 18

EXPLANATION: Use the ratio given to set up a proportion. In other words, we know the relationship of height to shadow for the first pole is 12/8. The proportion is 12/8 = *x*/10. Notice both denominators represent the shadows. Cross multiply:

120 = 8*x*

Divide both sides by 8 to get *x* = 15, **CHOICE D**.

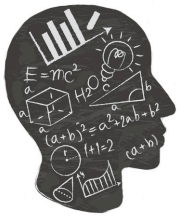




12) If a is the smallest prime number greater than 21 and b is the largest prime number less than 16, then ab =

A. 299
B. 323
C. 330
D. 345
E. 351

EXPLANATION: The smallest prime number greater than 21 is 23, and the largest prime number less than 16 is 13, so 23 * 13 = 299, **CHOICE A.** Remember, prime numbers are numbers that only have two factors: the prime number itself, and the number 1.



13) For the 3 numbers in a list, the average (arithmetic mean) and the median are equal to 8. If the greatest number in the list is 10 greater than the least number, what is the greatest number in the list?

EXPLANATION: **Fun fact:** ***in an arithmetic sequence of numbers (a sequence in which there's a common difference between numbers, for example, 2, 4, 6, 8) the mean and median are equal.*** If the median of the list of three numbers is 8 and the greatest number is 10 greater than the least number, you can solve via trial and error or reason than 8 + 5 is the greatest number, and 8 – 5 is the least number. If the numbers are 3, 8, and 13, **then the greatest number is 13.**

Least Greatest

[?] , [8] , [ ]

$G = 10 + L$, $G - 10 = L$

$8 = \text{Average} = \frac{\text{total}}{\#} = \frac{\text{total}}{3} = 8$, $\text{total} = 24$

$[24 = \text{total} = L + G + 8] - 8$

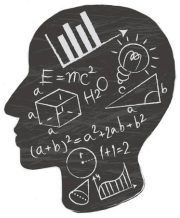
$16 = L + G$ substitute $L = G - 10$

$16 = (G - 10) + G$

$[16 = 2G - 10] + 10$

$[26 = 2G] \div 2$

$13 = \text{Greatest}$



Questions 14-16 are based on the following data.

STUDENT ENROLLMENT AT A SMALL COLLEGE

Distribution of Enrollment by Class and Gender
Total Enrollment: 1,400

Class	Males	Females
Freshmen	303	259
Sophomores	215	109
Juniors	182	88
Seniors	160	84
Total	**860**	**540**

Percent of Total Enrollment Majoring in Selected Academic Areas

Area	Percent
Humanities	33%
Social Sciences	30%
Physical Sciences	24%

NOTE: No student is majoring in more than one area

14) The ratio of the number of male freshmen to the number of female sophomores is approximately

A. 2 to 1
B. 3 to 1
C. 3 to 2
D. 4 to 1
E. 5 to 3

EXPLANATION: The number of male freshman is 303 and the number of female sophomores is 109. "Ratio" simply indicates division, so divide 303 by 109. The ratio of 303 to 109 approximately 3 to 1, so **CHOICE B** is right.

15) How many of the enrolled students are *not* majoring in humanities, social sciences, or physical sciences?

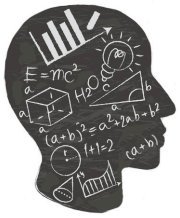
A. 87
B. 122
C. 182
D. 230
E. 322

EXPLANATION: 87% of students are majoring in either humanities, social sciences, or physical sciences (just add up the percentages), leaving 13% who major in other areas. Find 13% of 1400 (the total number of enrolled students) by multiplying (.13) by 1400 = 182, **CHOICE C**.

16) Sophomores constitute approximately what percent of the total enrollment?

A. 23%
B. 20%
C. 18%
D. 15%
E. 8%

EXPLANATION: Add up the sophomores: there are 324 total (215 male and 109 female). Dividing 324 by 1400 tells you what percent of the total enrollment the sophomores are. You should get about .23, so the right answer is **CHOICE A**.



17) A third-grade teacher has n boxes, each containing 12 pencils After the teacher gives p pencils to each student, the teacher has t pencils left over. Which of the following represents the number of students in the class?

A. $\frac{12n - t}{p}$

B. $\frac{12n + t}{p}$

C. $\frac{12n}{p} - t$

D. $\frac{12p - t}{n}$

E. $\frac{12p + t}{n}$

EXPLANATION: Let's say the total number of pencils is 12*n*, since n boxes each have 12 pencils in them. Let's call the number of students *x*. If the teacher gives *p* pencils to each students, then the total number of pencils given is *px*. Now we can make an equation describing what happened: $12n - px = t$ (the number of pencils left over). Then, we can rewrite that equation in terms of *x* (in other words, in the form *x* = the equation. Start by subtracting 12*n* from both sides: $-px = t - 12n$

Then multiply both sides by negative 1 to get rid of the negative sign in the first expression: $px = -t + 12n$

Let's rewrite that to make it look like the answer choices: $px = 12n - t$

Finally, divide both sides by *p*, and you'll see that you have the same equation as **CHOICE A**.

Plug-in method

best order to pick:

1) → n = 3 boxes × 12 pencils/box = 36 pencils

3) → p = 3

4) → t = 6

2) → s = (10)

A) $\frac{12n-t}{p} = \frac{36-6}{3} = \frac{30}{3} = (10)$ ✓

~~B)~~ $\frac{12n+t}{p} = \frac{36+6}{3} = \frac{42}{3} = 14$ ✗

~~C)~~ $\frac{12n}{p} - t = \frac{36}{3} - 6 = 12 - 6 = 6$ ✗

D) $\frac{12p-t}{n} = \frac{36-6}{10} = \frac{30}{3} = (10)$ ✓

~~E)~~ $\frac{12p+t}{n} = \frac{36+6}{10} = \frac{42}{3} = 14$ ✗

A vs D: plug in again.

n = 2 × 12 = 24 pencils

s = (5)

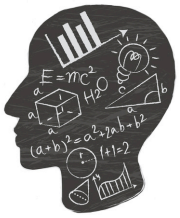
p = 4

t = 4

A) $\frac{12n-t}{p} = \frac{24-4}{4} = \frac{20}{4} = 5$ ✓

~~D)~~ $\frac{12p-t}{n} = \frac{48-4}{2} = \frac{44}{2} = 22$ ✗

[A]



$12n$ = total # of pencils $\quad \frac{P \text{ pencils}}{\text{student}}$

x = # of students $\quad$ "per" = multiply

$12n - px = t$ $\quad$ solve for x.

$[12n - t = px] \div p$

$\frac{12n - t}{p} = x$ $\quad$ A

18) If $(x + 2)(x - 3) = 0$ and $x > \frac{1}{2}$, what is the value of x^{-2}?

A. $-\frac{1}{4}$
B. $-\frac{1}{9}$
C. 0
D. $\frac{1}{9}$
E. $\frac{1}{4}$

EXPLANATION: There are two solutions for x; both –2 and 3 will make the equation true. We have to use $x = 3$ since $x > \frac{1}{2}$. $3 - 2$ is the same thing as $\frac{1}{3^2}$, which is $\frac{1}{9}$, **CHOICE D**.

$(x+2)(x-3) = 0$, $x > \frac{1}{2}$

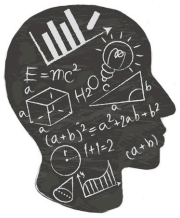
TIP: If $(A)(B) = 0$, then $A = 0$, or $B = 0$, or both.

$x + 2 = 0$ $\quad$ $x - 3 = 0$

$x = -2$ $\quad$ $x = 3 > \frac{1}{2}$ ✓

not $> \frac{1}{2}$!

$x^{-2} = 3^{-2} = \frac{1}{3^2} = \frac{1}{9}$ D



19) If j and k are integers and $j - k$ is even, which of the following must be even?

A. k
B. jk
C. $j + 2k$
D. $jk + j$
E. $jk - 2j$

EXPLANATION: Let's test numbers that work. If j is 5 and k is 3, then $j - k$ is even. Now we need to check which choices work, and try other numbers if needed. **CHOICE D** yields an even number, and is the only choice that does.

j, k = int j − k = even

WHICH MUST BE EVEN?

TIP: Try to DISPROVE, not prove.

Pick numbers for j and k.

j − k = even

7 − 3 = 4

8 − 4 = 4

~~A)~~ j = 7 = ODD

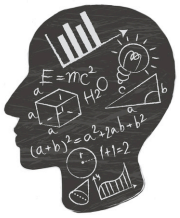
~~B)~~ (7)(3) = 21 = ODD

~~C)~~ 7 + 2(3) = 7 + 6 = 13 = ODD

D) 7(3) − 3 = 21 − 3 = 18 = EVEN

~~E)~~ (7)(3) − 2(3) = 21 − 6 = 15 = ODD

D



20) A fruit stand sells two varieties of apples at \$1.00 and \$1.25 per pound, respectively, and two varieties of oranges at \$1.25 and \$1.50 per pound, respectively. Which of the following could be the total price of 3 pounds of one variety of apples and 2 pounds of one variety of oranges at the stand?

Indicate *all* such prices.

A. \$5.75
B. \$6.00
C. \$6.25
D. \$6.50
E. \$6.75

EXPLANATION: We just need to test the possibilities here. If we're talking about \$1.00 / lb apples, 3 pounds is \$3.00, and if we use \$1.25 / lb apples, 3 lbs. Is \$3.75. 2 lbs. of \$1.25 oranges is \$2.50 and 2 lbs. of \$1.50 oranges is \$3.00. Now let's see which choices we can make, one by one, by selecting one kind of apples and one kind of oranges. Can we make choice A? No. **CHOICE B**? Yes. **CHOICE C**? Yes. Choice D? No. **CHOICE E**? Yes.

APPLES

$\frac{\$1}{1\text{lb}}$ or $\frac{\$1.25}{1\text{lb}}$

A_1 or A_2

ORANGES

$\frac{\$1.25}{1\text{lb}}$ or $\frac{\$1.50}{1\text{lb}}$

O_1 or O_2

A_1/O_1 $\quad 3A + 2O = ?$

$3(1) + 2(1.25) =$

$3 + 2.5 = (5.5)$

A_1/O_2 $\quad 3(1) + 2(1.5) =$

$3 + 3 = (6)$ [B]

A_2/O_1 $\quad 3(1.25) + 2(1.25) =$

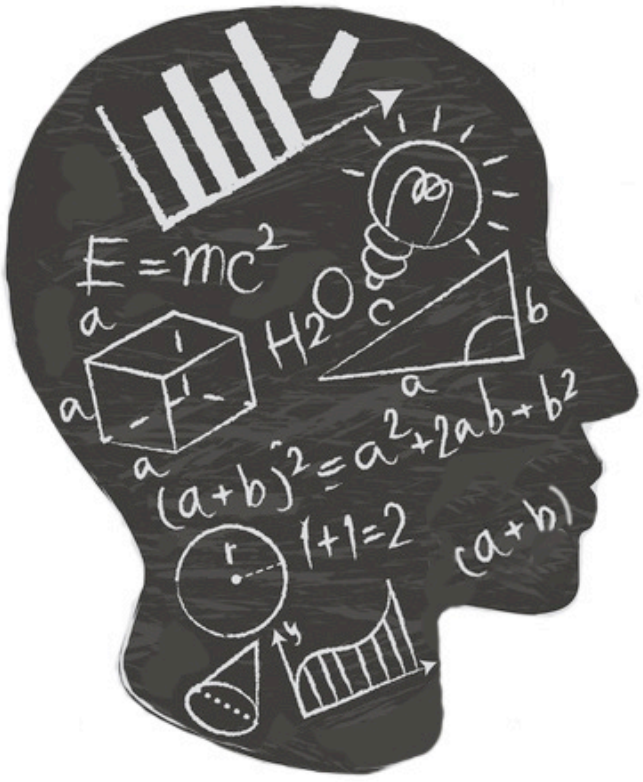
$3.75 + 2.5 = (6.25)$ [C]

A_2/O_2 $\quad 3(1.25) + 2(1.5) =$

$3.75 + 3 = (6.75)$ [E]

[B/C/E]

| **NOTES**

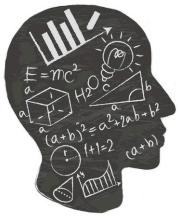


PowerPrep Test 1

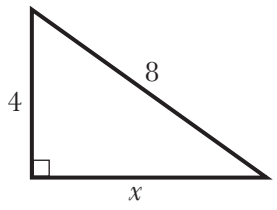
Quantitative

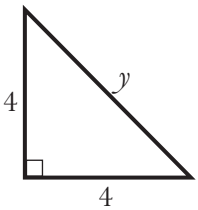
Medium Difficulty Version

(At least 8 correct on Section 1)



1)





Quantity A	Quantity B
x	y

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: We can solve for both x using the Pythagorean theorem (leg^2 + other leg^2 = hypotenuse^2) and for y using the 45/45/90 ratio rule (or Pythagorean theorem if you forget the rule). Below is a visual that should help. The correct answer is **CHOICE A**.

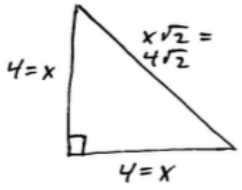
$4^2 + x^2 = 8^2$

$x^2 = 64 - 16$

$x^2 = 48, \quad x = \sqrt{48} = \sqrt{4 \cdot 12} =$

$= \sqrt{16 \cdot 3} = 4\sqrt{3}$

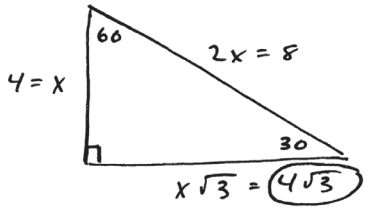
$y = 4\sqrt{2}$ by rule $(45/45/90)$
$(x/x/x\sqrt{2})$

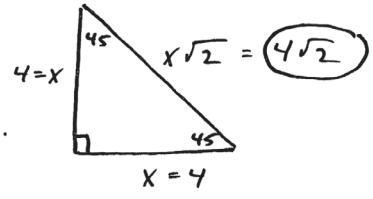


MEMORIZE:
↓
$\sqrt{3} = 1.7$ish
$\sqrt{2} = 1.4$ish

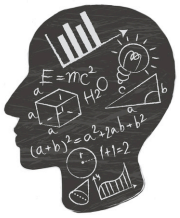
so $4\sqrt{3} > 4\sqrt{2}$

$x > y$ A

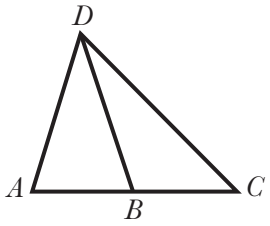




vs.



2)



$AB = BC$

Quantity A	Quantity B
The area of ΔABD	**The area of ΔBCD**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: The formula for the area of a triangle is (base)(height)/2. Remember that the height of a triangle is the perpendicular (90 degree angle) distance to the top.

Hence, the heights of both smaller triangles are the same, since they share the same apex.

CHOICE A: (base)(height)/2 = (AB)(height)/2

CHOICE B: (base)(height)/2 = (BC)(height)/2 = (AB)(height)/2 *by substitution AB = BC*

Since both quantities are equal, the answer is **CHOICE C**.

3) Ray is 2 inches taller than Lin, and Ray is 3 inches taller than Sam.

Quantity A	Quantity B
The average (arithmetic mean) height of Ray, Lin, and Sam	**The median height of Ray, Lin, and Sam**

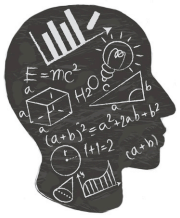
A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Make it true, and don't worry about making their heights realistic — using inches and feet would just complicate the question. Instead, use smaller numbers to make the math easier. Ray is 6 inches tall, Lin is 4 inches tall and Sam is 3 inches tall.

CHOICE A: Average = Total/# of things = (6 + 4 + 3) / 3 = 13/3 = 4.33

CHOICE B: Median = Middle Term after Ordering = 4

4.33 > 4 so the answer is **CHOICE A**.

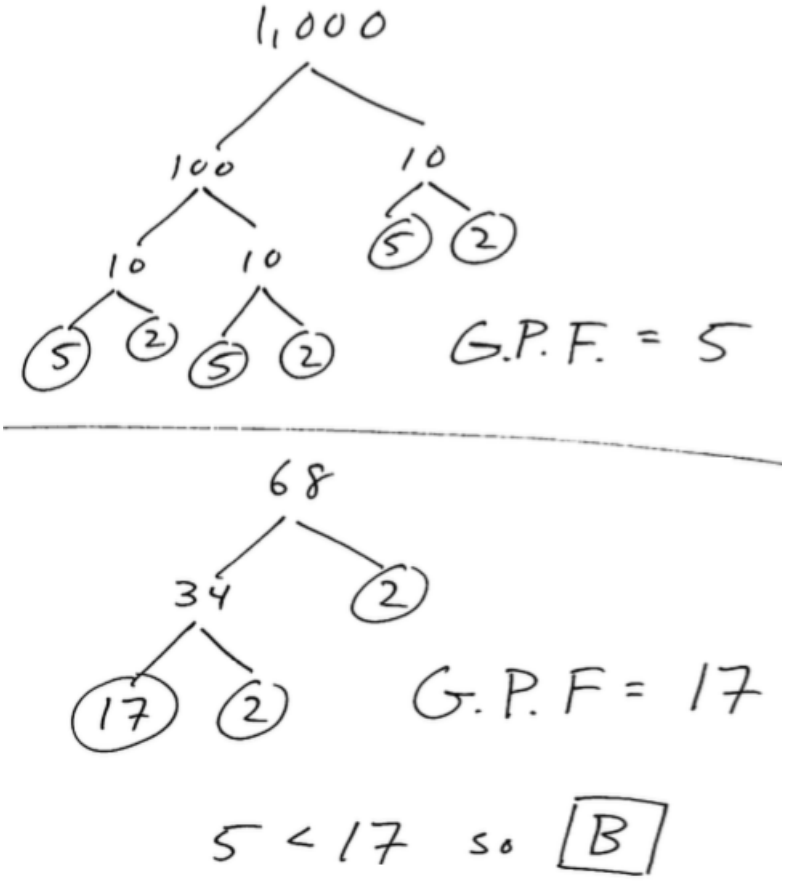


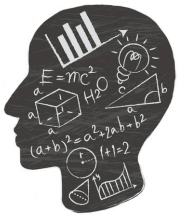
4)

Quantity A	Quantity B
The greatest prime factor of 1,000	**The greatest prime factor of 68**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Draw a factor tree to determine the prime factorials of each number.





5) The probability that both Events E and F will occur is 0.42.

Quantity A	Quantity B
The probability that Event E will occur	**0.58**

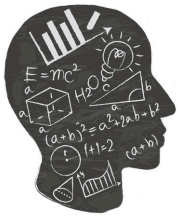
A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: This one's easy. **The probability that two events will both occur is the product of their probabilities,** so just multiply them together.

EF = 0.42

E = 0.42/F

Thus, the answer depends on the value of F. If F = 1, then E = .42 (Choice B). If F=0.42, then E = 1 (Choice A). Thus, the answer is **CHOICE D**.



6) $x > 1$

Quantity A	Quantity B
$x(x^2)^4$	$(x^3)^3$

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: See attached visual. PEMDAS (Parentheses, Exponents, Multiplication/Division, Addition/Subtraction) tells us that the exponents come before the multiplication in Quantity A.

Exponent Rule Reminder (same base required): when we *multiply* exponential expressions with the same base, the trick is to *add the exponents*. And when we take an exponential expression to a power of *x*, the trick is to multiply the exponent by *x*.

$x > 1$

A

$x(x^2)^4 =$

PEMDAS

$x \cdot x^{2 \cdot 4} =$

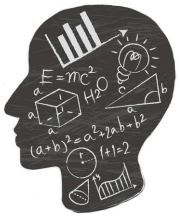
$x \cdot x^8 = x^9$

B

$(x^3)^3 =$

$x^{3 \cdot 3} = x^9$

C



7) c and d are positive integers.

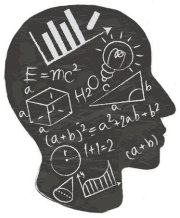
Quantity A	Quantity B
$\frac{c}{d}$	$\frac{c+3}{d+3}$

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: I wouldn't suggest doing this one algebraically, because that would be a huge mess. Instead, pick numbers and test.

First, start with numbers that make the math easy, just to get something on the board. $C = 4$ and $d = 2$ would yield the following: Quantity A) 4/2 = 2, Quantity B) 7/5 = 1ish, so in this case the answer is Choice A. First, write down "A," "B," "C," and "D" on your scrap paper vertically. Put a dash next to Choice A, which you have proven to be true in one instance. Now, cross off Choice B and Choice C, and try to make one of them true. If the answer can be more than one among Choices A, B, and C, then the answer is Choice D. Otherwise, choose Choice A.

Now, let's see if we can set them equal. There is nothing in this question that indicates that c and d can't be the same positive integer. $C = 4$, $d = 4$ would yield the following: Quantity A) 4/4 = 1, Quantity B) 7/7 = 1, which in this case would be Choice C. Thus, the answer is **CHOICE D**.

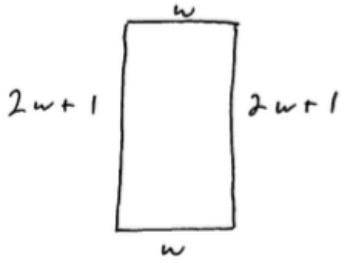


8) A rectangular garden has a perimeter of 92 feet. If the length of the garden is 1 foot greater than twice its width, what is the length of the garden, in feet?

A. 15
B. 23
C. 30
D. 31
E. 62

EXPLANATION: Draw it. Notice that *w*=15, so the GRE is trying to fool you with Choice A. *w* = 15, yes, but the length = 2*w* + 1 = 31, **CHOICE D**.

#8 $p = 92$ $\ell = 2w + 1$



perimeter = distance around $= w + w + (2w+1) + (2w+1) =$

$2w + 4w + 2 =$

$6w + 2 = 92$

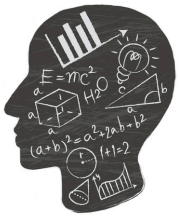
$6w = 90$

$w = 15$ SUBSTITUTE

$\ell = 2w + 1 = 2(15) + 1 =$

$30 + 1 = 31$

D



9) How many 2-digit positive integers are there such that the product of their two digits is 24?

A. One
B. Two
C. Four
D. Six
E. Eight

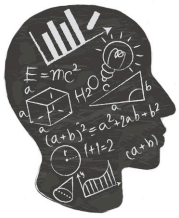
EXPLANATION: Go through this methodically and you should be fine. Start with the small numbers and work your way up. Two-digit numbers can be represented by capital letters such as AB, where A and B both represent digits instead of variables. (Digits = the 10 numbers from 0-9).

Translation: For how many two-digit positive integers AB is the product of A and B equal to 24 (ab=24)?

1 . First digit of 1 will never work.
2. First digit of 2 will never work.
3. 38
4. 46
5. First digit of 5 will never work.
6. 64
7. First digit of 7 will never work.
8. 83
9. First digit of 9 will never work.

That covers all the two-digit numbers.

Hence the answer is **CHOICE C**: there are four 2-digit positive integers (38, 46, 64 and 83) whose product is 24.



10) If $(2x+1)(x-5) = 2(x^2-1)$, what is the value of x?

A. $-1/3$
B. $-1/5$
C. 0
D. $1/3$
E. $1/2$

EXPLANATION: Write it out.

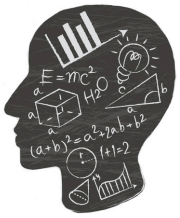
$$(2x+1)(x-5) = 2(x^2-1)$$ DISTRIBUTE

$$2x^2 - 10x + x - 5 = 2x^2 - 2$$

$$-9x - 5 = -2$$

$$-9x = 3 \quad \div -9$$

$$x = -\frac{3}{9} = -\frac{1}{3}$$ A



11) At a certain fruit stand, the price of an apple is twice the price of an orange. For which of the following combinations of apples and oranges is the total price equal to the total price of 20 oranges?

Indicate *all* such combinations.

A. 2 apples and 16 oranges
B. 3 apples and 14 oranges
C. 4 apples and 10 oranges
D. 6 apples and 8 oranges
E. 10 apples and 5 oranges
F. 12 apples and 4 oranges

EXPLANATION: This is an exercise in simple substitution. Notice that oranges is represented by the variable O, which can be awkward because it looks like zero. Thus, consider using another variable instead.

Price of A = 2 (orange)

$A = 2(or.)$

$10A = 20(or.)$

STRATEGY: Substitute A for 2(or.) to see what equals 10A.

A) $2A + 8A = 10A$ ✓ (16(o)=)

B) $3A + 7A = 10A$ ✓ (15(o))

C) $4A + 5A = 9A$ ✗ (10(o))

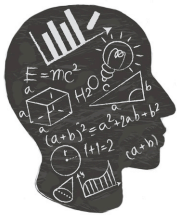
D) $6A + 4A = 10A$ ✓ (8(o))

E) $10A + 2.5A = 12.5A$ ✗ (5(o))

F) $12A + 2A = 14A$ ✗ (4(o))

A, B, D

The answers are **CHOICES A, B,** and **D**.



12) A third-grade teacher has n boxes, each containing 12 pencils. After the teacher gives p pencils to each student in her class, the teacher has t pencils left over. Which of the following represents the number of students in the class?

A. $\frac{12n - t}{p}$

B. $\frac{12n + t}{p}$

C. $\frac{12n}{p} - t$

D. $\frac{12p - t}{n}$

E. $\frac{12p + t}{n}$

EXPLANATION: This is what I call a "word-to-math translation problem."

$\frac{12 \text{ pencils}}{\text{box}} \cdot \frac{n \text{ boxes}}{1} = 12n \text{ pencils}$

# of students in the class = ?

let x = # of students

$12n - px = t$

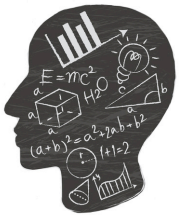
"After the teacher gives p pencils to each student in her class, she has t pencils left over."

SOLVE FOR x.

$12n - t = px$

$\frac{12n - t}{p} = x$ A

The correct answer is **CHOICE A**.



13) Judy drove 20 miles from her house to a theater at an average rate of 50 miles per hour. Greg drove from his house to the theater in 1/3 of the time it took Judy to drive to the theater, and they both arrived at the same time. If Judy left her house at 7:30 P.M., when did Greg leave his house?

A. 7:34 P.M.
B. 7:38 P.M.
C. 7:42 P.M.
D. 7:46 P.M.
E. 7:54 P.M.

EXPLANATION: Judy's distance = rate x time, so $d = rt$, $20 = 50t$, $t = 2/5$ hour = 24 minutes.

Greg's time = 1/3 of Judy's time = 1/3 of 24 = (1/3)(24) = 24/3 = 8 minutes.

Judy left at 7:30 and needed 24 minutes so she got there at 7:30 + 0:24 = 7:54. Greg got there at the same time as Judy, but it only took him 8 minutes. Subtract 8 minutes from 7:54 and you get 7:46, **CHOICE D.**

14)

STUDENT ENROLLMENT AT A SMALL COLLEGE

Distribution of Enrollment by Class and Gender
Total Enrollment: 1,400

Class	Males	Females
Freshmen	303	259
Sophomores	215	109
Juniors	182	88
Seniors	160	84
Total	**860**	**540**

Percent of Total Enrollment Majoring in Selected Academic Areas

Area	Percent
Humanities	33%
Social Sciences	30%
Physical Sciences	24%

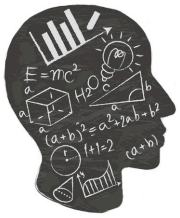
NOTE: No student is majoring in more than one area

Approximately what percent of the females are juniors?

A. 16%
B. 18%
C. 20%
D. 21%
E. 25%

EXPLANATION: Percent = (part/whole) x 100 = (88 female juniors / 540 females total) x 100 = USE THE CALCULATOR = 16.3%. Notice the word "approximately" in the question. Thus, **CHOICE A**.

Also notice how the first question of a group of questions pertaining to a chart is often easy, even on a medium difficulty section.



15)

STUDENT ENROLLMENT AT A SMALL COLLEGE

Distribution of Enrollment by Class and Gender
Total Enrollment: 1,400

Class	Males	Females
Freshmen	303	259
Sophomores	215	109
Juniors	182	88
Seniors	160	84
Total	**860**	**540**

Percent of Total Enrollment Majoring in Selected Academic Areas

Area	Percent
Humanities	33%
Social Sciences	30%
Physical Sciences	24%

NOTE: No student is majoring in more than one area

If 40 percent of the social science majors are females, how many males are social science majors?

A. 120
B. 168
C. 220
D. 252
E. 372

EXPLANATION: In GRE world, there are only two genders: male and female. Thus, "40 percent of the social science majors are females" means that 60 percent of the social science majors must be male (100% - 40% = 60%). So take "sixty percent of 30 percent of 1400" = (.60)(.30)(1400) = USE YOUR CALCULATOR = 252. **CHOICE D** is correct.

16)

STUDENT ENROLLMENT AT A SMALL COLLEGE

Distribution of Enrollment by Class and Gender
Total Enrollment: 1,400

Class	Males	Females
Freshmen	303	259
Sophomores	215	109
Juniors	182	88
Seniors	160	84
Total	**860**	**540**

Percent of Total Enrollment Majoring in Selected Academic Areas

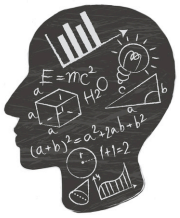
Area	Percent
Humanities	33%
Social Sciences	30%
Physical Sciences	24%

NOTE: No student is majoring in more than one area

Students ***not*** majoring in humanities constitute what percent of the total enrollment?

A. 54%
B. 67%
C. 70%
D. 76%
E. 77%

EXPLANATION: Easy. If 33% of students are studying humanities, and (as given) no student is majoring in more than one area, then we can safely conclude that **67%** (100% – 33% = 67%) of the students are *not* majoring in humanities. **CHOICE B** is correct.



17) If $x > 0$, then $(\sqrt{4x} + \sqrt{9x})^2$

A. $5x$
B. $6x$
C. $13x$
D. $25x$
E. $30x$

EXPLANATION: Write it out and use the FOIL method.

$$(\sqrt{4x} + \sqrt{9x})^2 =$$

$$(\sqrt{4x} + \sqrt{9x})(\sqrt{4x} + \sqrt{9x}) =$$

$$4x + \sqrt{36x} + \sqrt{36x} + 9x =$$

$$4x + 6x + 6x + 9x = 25x$$

D

The correct answer is **CHOICE D**.

18) Which of the following points are on the graphs of both the equation $y = x + 2$ and the equation $y = y = x^2$ in the xy-plane? Indicate all such points.

A. $(-2, 0)$
B. $(-1, 1)$
C. $(0, 2)$
D. $(1, 1)$
E. $(2, 4)$

EXPLANATION: Test each point individually for both equation #1 and equation #2 (simply plug in the respective x and y values).

CHOICE A: Works for #1 but not for #2 $0 \neq (-2)^2$

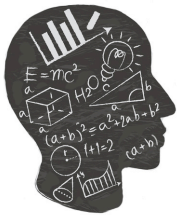
CHOICE B: Yes, works for both.

CHOICE C: Works for #1 but not for #2 $2 \neq 0^2$

CHOICE D: Works for #2 but not for #1 $1 \neq 1 + 2$

CHOICE E: Yes, works for both.

The correct answers are **CHOICES B** and **E**.



19) If x is an integer, which of the following must be an even integer?

A. $x^2 - x - 1$
B. $x^2 - 4x + 6$
C. $x^2 - 5x + 5$
D. $x^2 + 3x + 8$
E. $x^2 + 2x + 10$

EXPLANATION: "Must be" questions should be approached in a somewhat counter-intuitive way: *instead of trying to make answer choice true, try to disprove them* until you only have one answer left.

Another factor at play here is that even and odd inputs to equations will always result in the same types of even/odd outputs (that is, whether the outputs are odd or even), no matter the actual value of the numbers we choose to input. Thus, if we test one even number, then we have essentially tested them all, and if we test one odd number, then we have essentially tested them all.

CHOICE A: When $x = 2$, the expression equals $2^2 - 2 - 1 = 4 - 2 - 1 = 2 - 1 = 1$ which is odd. FALSE.

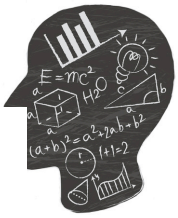
CHOICE B: When x = 1, the expression equals 1^2-(4)(1) + 6 = 1 - 4 + 6 = 3 which is odd. FALSE.

CHOICE C: When x = 1, the expression equals 1^2-(5)(1) + 5 = 1 - 5 + 5 = 1 which is odd. FALSE.

CHOICE D: When x=2 (even), the expression equals $2^2 + (3)(2) + 8 = 8$ which is even. When x=3 (odd), the expression equals $32 + (3)(3) + 8 = 9 + 9 + 8 = 26$ which is even. TRUE.

CHOICE E: When x=1, the expression equals $1^2 + (2)(1) + 10 = 1 + 2 + 10 = 13$ which is odd. FALSE.

You can also solve using algebra and the properties of odd and even numbers:



E = Even
O = Odd

~~A)~~ $x^2 - x - 1 = x(x-1) - 1 =$

$2 \cdot 3 = 6$

$E \cdot O = E$

$(O)(E) - 1$ or $(E)(O) - 1$] Even − 1 = Odd

B) $x^2 - 4x + 6 = x(x-4) + 6 =$

$E \cdot E = E$

$2 \cdot 4 = 8$

$O \cdot O = O$

$3 \cdot 5 = 15$

$(E)(E) + 6 =$ Even + 6 = Even

or

$(O)(O) + 6 =$ Odd + 6 = Odd

C) $x^2 - 5x + 5 = x(x-5) + 5 =$

$(O)(E) + 5 = E + 5 =$ Odd

or

$(E)(O) + 5 = E + 5 =$ Odd

(D) $x^2 + 3x + 8 = x(x+3) + 8 =$

$(E)(O) + 8 = E + 8 =$ Even

$(O)(E) + 8 = E + 8 =$ Even

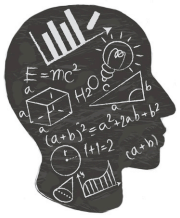
~~E)~~ $x^2 + 2x + 10 = x(x+2) + 10 =$

$(E)(E) + 10 = E + 10 =$ Even

or

$(O)(O) + 10 = O + 10 =$ Odd

The correct answer is **CHOICE D**.



20) The average (arithmetic mean) of 11 numbers in a list is 14. If the average of 9 of the numbers in the list is 9, what is the average of the other 2 numbers?

EXPLANATION: Write it out.

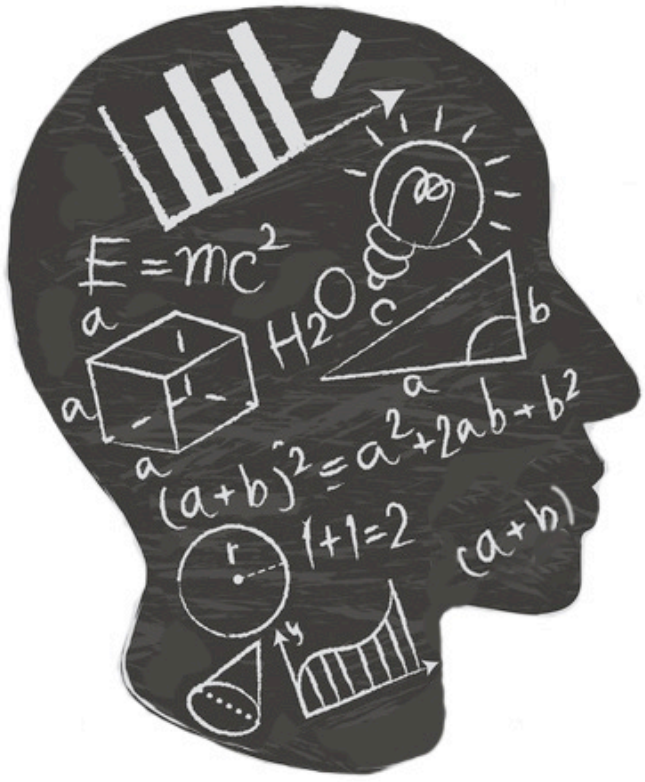
$$Av = \frac{total}{\#}$$

$$14 = \frac{total}{11}, \quad 154 = total$$

$$9 = \frac{total}{9}, \quad 81 = total$$

$$Av = \frac{154-81}{2} = \frac{73}{2} = 36.5$$

The correct answer is **36.5**.



PowerPrep Test 1

Quantitative

Hard Version

(At least 15 correct on Section 1)

1) The list price of a certain tool is x dollars. In Store A the original selling price of the tool was $50 less than the list price, and the current selling price is 10 percent less than the original selling price. In Store B the original selling price of the tool was 10 percent less than the list price, and the current selling price is $50 less than the original selling price.

Quantity A	**Quantity B**
The current selling price of the tool in Store A	**The current selling price of the tool in Store B**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Write it out.

list = $x

TIP: Avoid using "L" and "O" as variables because they can be confused with 1 and zero.

Original = y
List = x

A: $y = x - 50$

$c = .9y$ SUBSTITUTE for y

$c = .9(x - 50)$

$c = .9x - 45$

B: $y = .9x$

$c = y - 50$ SUBSTITUTE for y

$c = .9x - 50$

A: $.9x - 45$ vs B: $.9x - 50$

$-45 > -50$

so

A

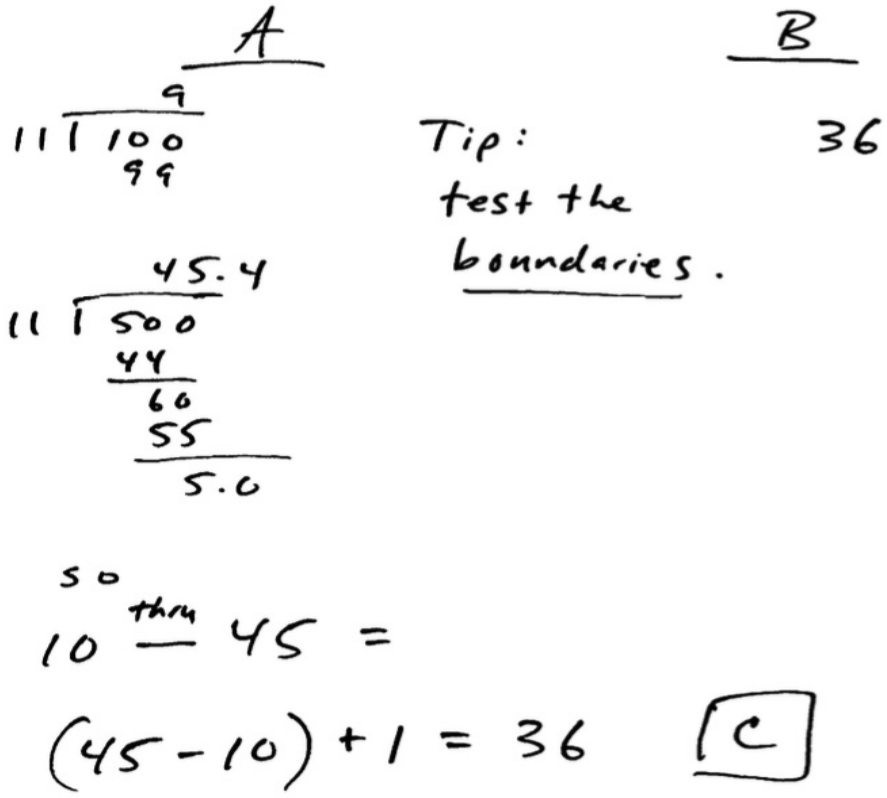
CHOICE A is correct. You could also sove by plugging in $x = 100$.

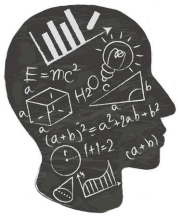
2)

Quantity A	Quantity B
The number of integers between 100 and 500 that are multiples of 11	**36**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Don't be tempted into trying to write out all of these multiples! Instead, simply test the boundaries by finding the smallest number that works (11 x 10 = 110) and the largest number that works (11 x 45 = 495). (11 x 10) through (11 x 45) might appear to be 35 numbers (45 - 10 = 35), but remember that you actually have to add one because it is *inclusive* (i.e, we are including 10). (45- 10)+1 = 36 so **CHOICE C** is correct.





3) $np < 0$

Quantity A	Quantity B
$\lvert p + n \rvert$	$\lvert p \rvert + \lvert n \rvert$

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Absolute value questions are tricky to solve using algebra, so let's just plug in instead.

There are two possibilities here: either *n* is negative and *p* is positive, or vice-versa.

n = -3 , *p* = 2 yields 1 for Quantity A and 5 for Quantity B.

n = 3, *p* = -2 yields 1 for Quantity A and 5 for Quantity B.

At this point we start to understand the concept: the absolute value sum of a negative and positive term is always less than sum of the absolute values of the individual terms, because a negative and a positive will always combine to make a number smaller than the largest number.

Every time we try numbers that make the conditions true, the answer to Quantity B is greater, so **CHOICE B** is correct.

4) a and b are positive integers.

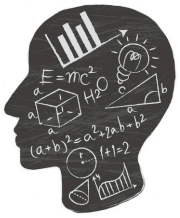
Quantity A	Quantity B
$\frac{a}{b}$	$\frac{a+3}{b+3}$

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: I wouldn't suggest doing this one algebraically, because that would be a huge mess. Instead, pick numbers and test.

First, start with numbers that make the math easy, just to get something on the board. *C* = 4 and *d* = 2 would yield the following: Quantity A) 4/2 = 2, Quantity B) 7/5 = 1ish, so in this case the answer is Choice A.

Now, let's see if we can makes the quantities equal. There is nothing in this question that indicates that *c* and *d* can't be the same positive integer. *C* = 4, *d* = 4 would yield the following: Quantity A) 4/4 = 1, Quantity B) 7/7 = 1, which in this case would be Choice C. Thus, the answer is **CHOICE D**.

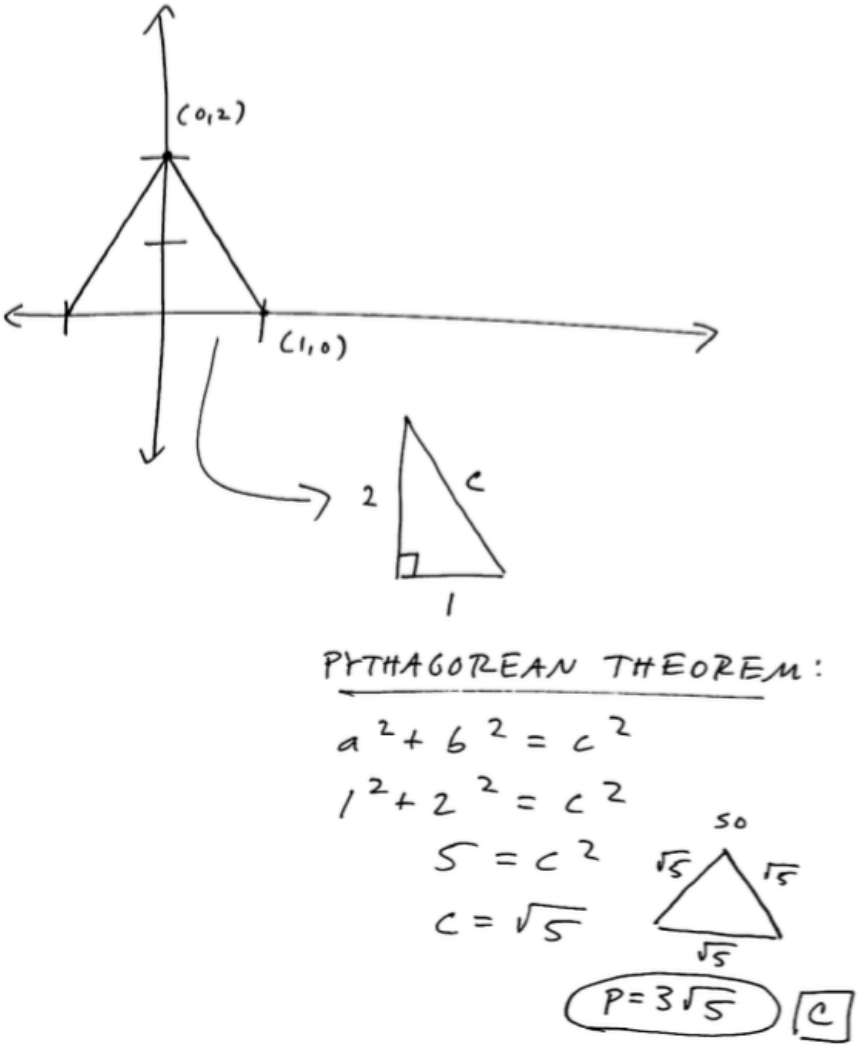


5) In the *xy*-coordinate plane, triangle *RST* is equilateral. Points *R* and *T* have coordinates (0, 2) and (1, 0), respectively.

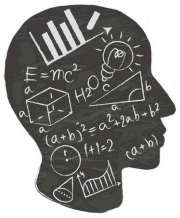
Quantity A	Quantity B
The perimeter of triangle *RST*	$3\sqrt{5}$

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Draw it out. **Note**: in my drawing it looks like the base of the triangle is exactly two, but this was just my initial sketch. In reality it would be more like 2.3.



The correct answer is **CHOICE C**.

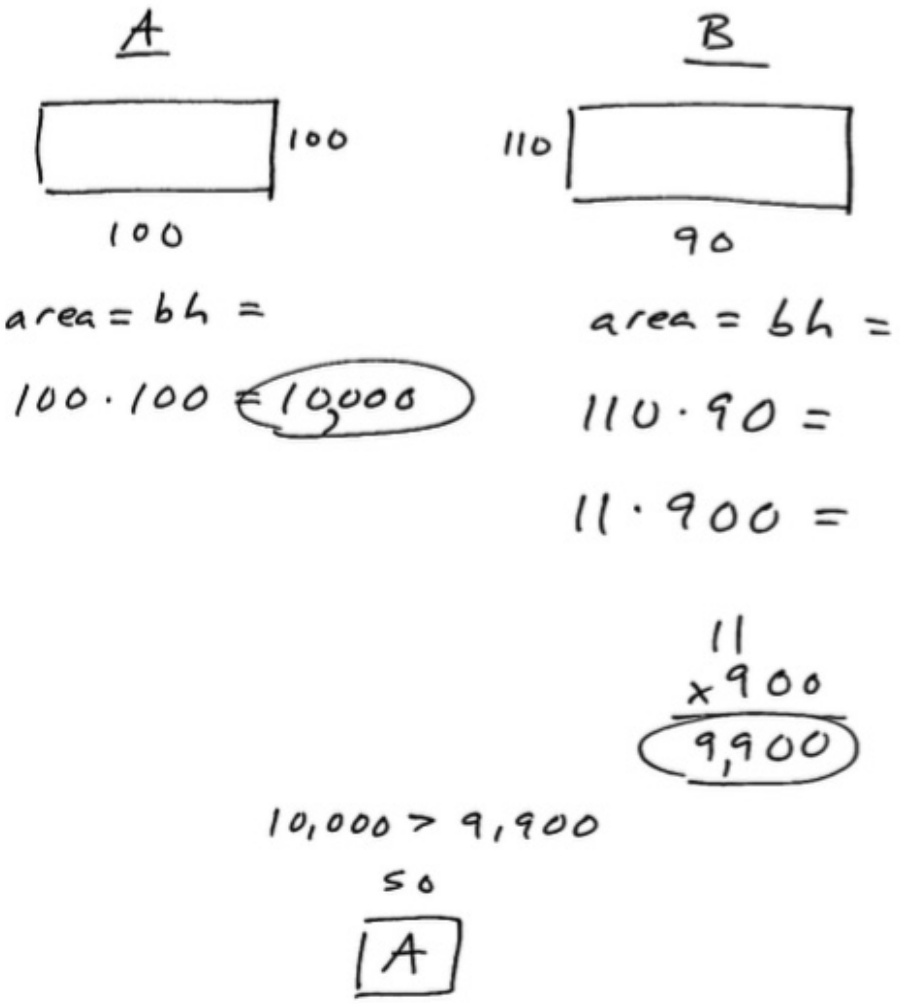


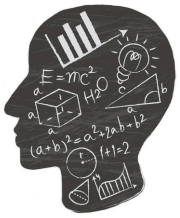
6) The length of rectangle *B* is 10 percent less than the length of rectangle *A*, and the width of rectangle *B* is 10 percent greater than the width of rectangle *A*.

Quantity A	**Quantity B**
The area of rectangle *A*	**The area of rectangle *B***

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: This one's easy if you just use 100 as your base number, since it's super easy to take percentages of 100. Write it out.





7) $c < 0 < d$

Quantity A	Quantity B
c^{-10}	d^{-5}

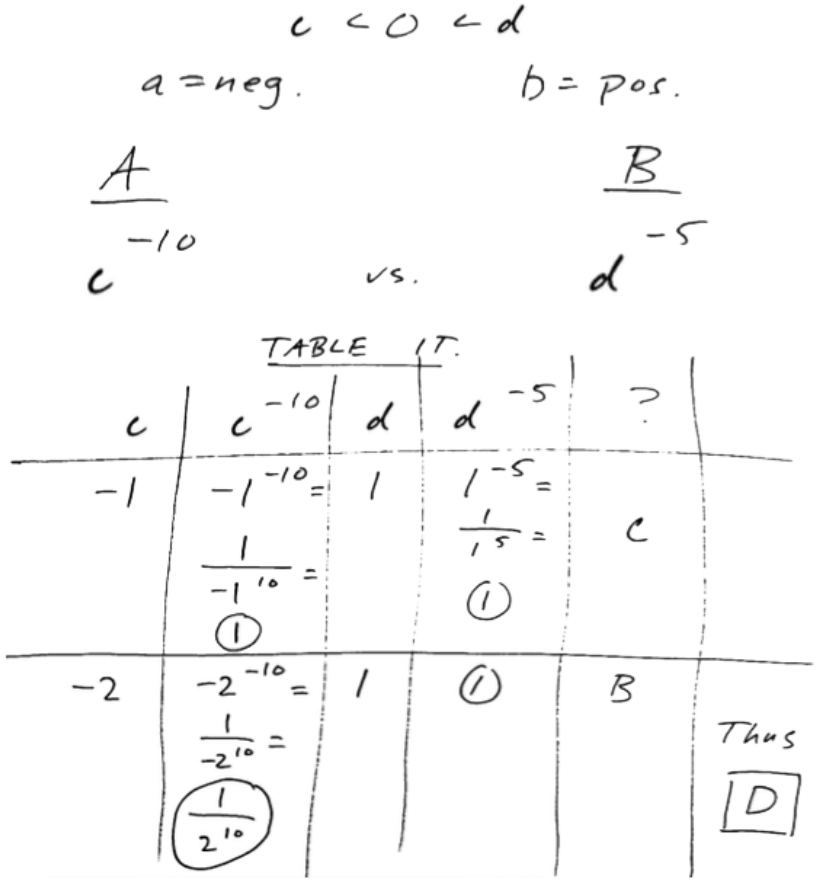
A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: The conditions of this question ($c < 0 < d$) are just a fancy way of telling us that a is negative and that b is positive.

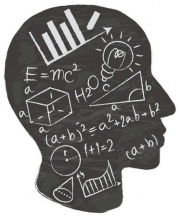
NEGATIVE POWER RULE: When we take an expression to a negative power, turn the entire expression into a fraction with one as the numerator, and then turn the negative exponent into a positive exponent.

NEGATIVE NUMBER TO EVEN POWER RULE: Negative numbers taken to even powers will cancel themselves out in pairs and thus become positive.

Thus $(-1)^{10} = (-1)x(-1)x(-1)x(-1)x(-1)(-1)x(-1)x(-1)x(-1)x(-1) = 1$



The correct answer is **CHOICE D**.



8) **USED CARS SOLD LAST MONTH AT DEALERSHIP *X***

Price Range	Number of Cars Sold
Under $5,000	7
$5,000 - $7,499	10
$7,500 – $10,000	8
Over $10,000	6

For the 31 used cars sold last month at Car Dealership X, which of the following could be the median price?

Indicate *all* such prices.

A. $5,500
B. $6,500
C. $7,000
D. $8,500
E. $10,500

EXPLANATION: Calculating median is pretty easy...just put the numbers in order and find the middle terms. We have 7 + 10 + 8 + 6 = 31 cars so the median is the 16th term.

TRICKS TO CALCULATE MEDIAN:

Even numbers of terms: Even numbers of terms have no "true median" (i.e, one of the numbers already in the list) so you will have to take the average of "half" and "half plus one."

For example, the median of 102 terms is the average of the $^{102}/_{2}$ = 51*st* and 52*nd terms*.

Odd numbers of terms: Odd numbers of terms are easier. Just divide by 2—you will get a decimal (.5) answer—and then it's the next integer term.

For example the median of 1,003 terms is the $^{1003}/_{2}$ = 501.5 --> 502*nd term*.

Thus, the median of 31 cars is the 31/2 = 15.5 = 16th car.

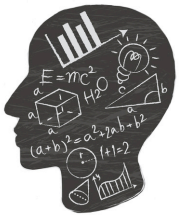
Start from the low numbers and work from the top.

7 cars under $5,000

10 cars $5,000-$7,499

That's 17 cars right there! Seeing that the 16th car is the median, we know that anything under $7,499 could be the median.

Thus, the correct answers are **CHOICES A, B,** and **C**.



9) If x is an integer, which of the following must be an even integer?

A. $x^2 - x - 1$
B. $x^2 - 4x + 6$
C. $x^2 - 5x + 5$
D. $x^2 + 3x + 8$
E. $x^2 + 2x + 10$

EXPLANATION: "Must be" questions should be approached in a somewhat counter-intuitive way: *instead of trying to make answer choice true, try to disprove them* until you only have one answer remaining.

Another factor at play here is that even and odd inputs to equations will always result in the same types of even/odd outputs (that is, whether the outputs are odd or even), no matter the actual value of the numbers we choose to input. Thus, if we test one even number, then we have essentially tested them all, and if we test one odd number, then we have essentially tested them all.

CHOICE A: When $x = 2$, the expression equals $2^2 - 2 - 1 = 4 - 2 - 1 = 2 - 1 = 1$ which is odd. FALSE.

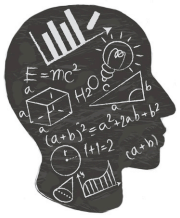
CHOICE B: When x = 1, the expression equals 1^2-(4)(1) + 6 = 1 - 4 + 6 = 3 which is odd. FALSE.

CHOICE C: When x = 1, the expression equals 1^2-(5)(1) + 5 = 1 - 5 + 5 = 1 which is odd. FALSE.

CHOICE D: When x=2 (even), the expression equals $2^2 + (3)(2) + 8 = 8$ which is even. When x=3 (odd), the expression equals $3^2 + (3)(3) + 8 = 9 + 9 + 8 = 26$ which is even. TRUE.

CHOICE E: When x=1, the expression equals $1^2 + (2)(1) + 10 = 1 + 2 + 10 = 13$ which is odd. FALSE.

The correct answer is **CHOICE D**.

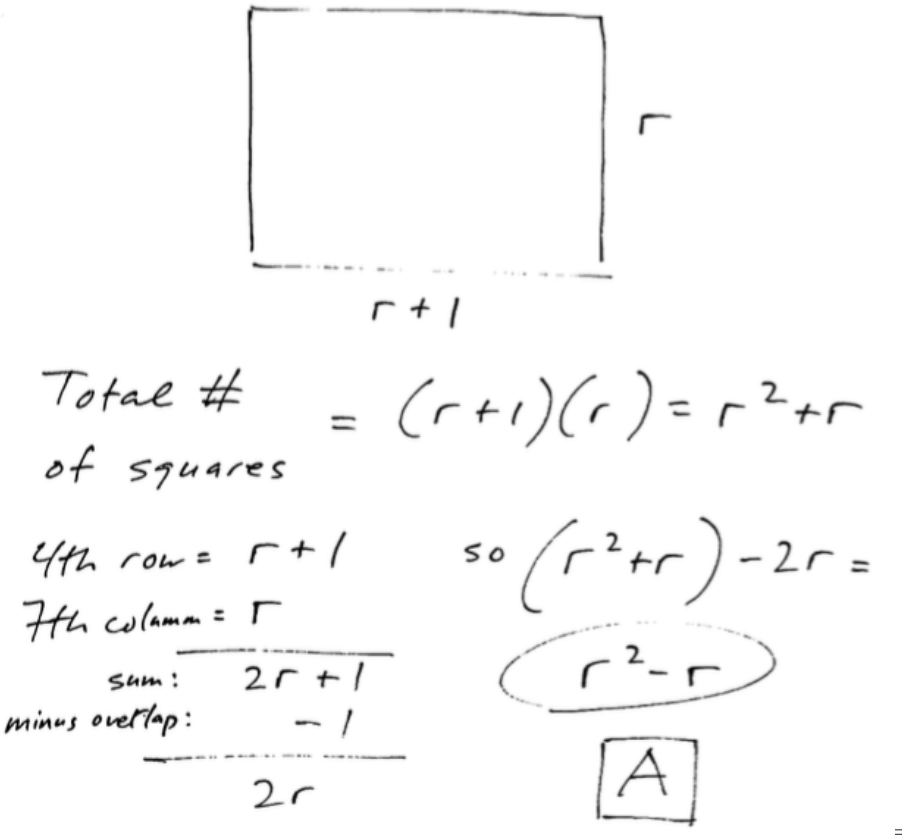


10) A rectangular game board is composed of identical squares arranged in a rectangular array of r rows and $r + 1$ columns. The r rows are numbered from 1 through r, and the $r + 1$ columns are numbered from 1 through $r + 1$. If $r > 10$, which of the following represents the number of squares on the board that are neither in the 4th row nor in the 7th column?

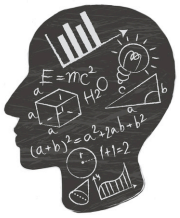
A. $r^2 - r$
B. $r^2 - 1$
C. r^2
D. $r^2 + 1$
E. $r^2 + r$

EXPLANATION: This is a tricky one. Drawing something like this out (a game board with at least 11 rows and 12 columns) would take a long time, but it's doable if you've banked some extra time or (recommended) you choose to skip a question like this and come back to it later.

Let's try it the algebraic way. Part of the trick here is remembering to subtract one, since there is exactly one square that belongs to both the 4th row and the 7th column, and which thus must be subtracted in order to avoid double-counting it.



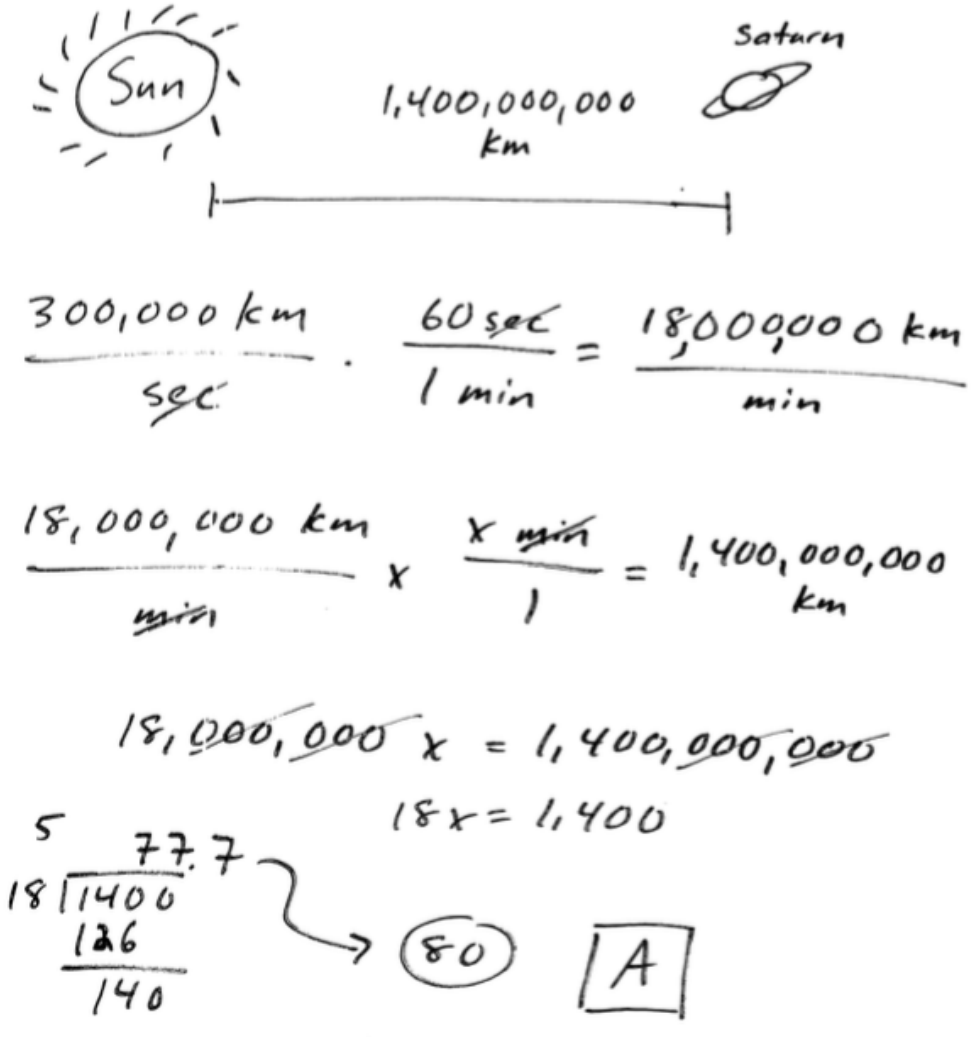
The correct answer is **CHOICE A**.



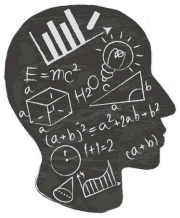
11) The Sun is approximately 1,400 million kilometers from the planet Saturn, and light from the Sun travels to Saturn at the rate of approximately 300,000 kilometers per second. Approximately how many *minutes* does it take for light to travel from the Sun to Saturn?

A. 80
B. 130
C. 160
D. 280
E. 360

EXPLANATION: Notice that the question says "approximately," so there is no need to worry if you don't see your exact answer in the choices.



The correct answer is **CHOICE A**.



12)

What is the least integer n such that $\frac{1}{2^n} < .001$?

A. 10
B. 11
C. 500
D. 501
E. There is no such least integer.

EXPLANATION: When a question asks "what is the least integer *n*...such that?" it is a good idea to simply start with the smallest number, and plug in. After all, what's the point of trying 11 if 10 also works, and we're looking for the least number that works?

The converse is also true. If the question asks for the largest number that works, then it makes sense to start with the largest answer.

Thus, let's start with A. If it works, then it's the answer, because it's the smallest integer in the list. You can either use the on-screen calculator to confirm that $\frac{1}{1,024}$ is less than .001, or you can keep in mind that $\frac{1}{1,000} = .001$ so $\frac{1}{1,024} \leq .001$

$$\frac{1}{2^{10}} = \frac{1}{4^5} = \frac{1}{4 \cdot 4 \cdot 4 \cdot 4 \cdot 4} =$$

USE CALC.

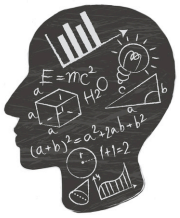
$$\frac{1}{1,024} = .00097 < .001 ?$$

yes.

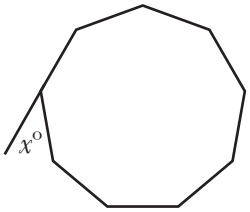
thus,

A

The correct answer is **CHOICE A**.



13)



The figure above shows a regular 9-sided polygon. What is the value of x?

$x =$ ☐

EXPLANATION: The formula for the number of degrees of an *n*-sided polygon is (*n*-2)(180). There are 9 sides in the polygon, and it is regular (all sides and angles equal), so using the formula:

(*n*-2)(180) =

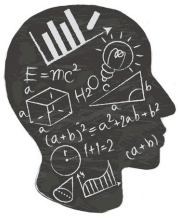
(9-2)(180) =

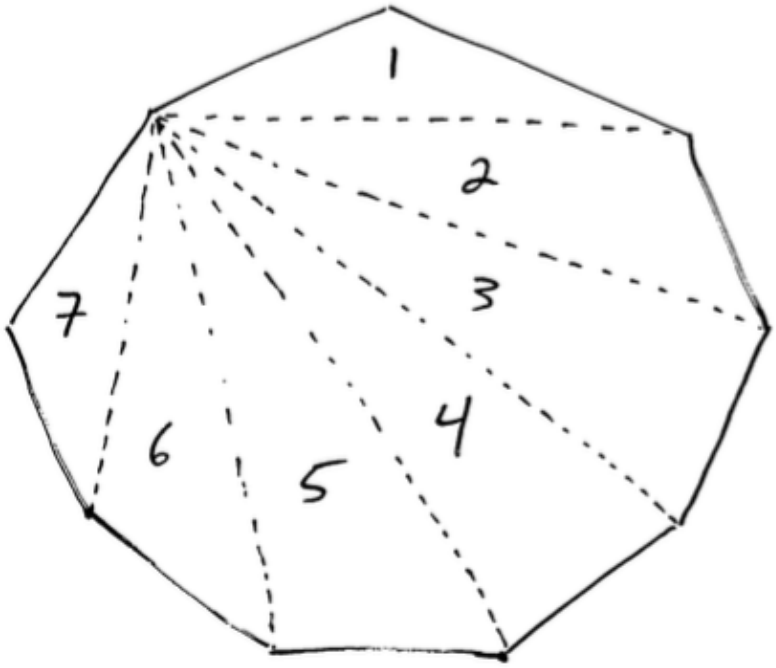
(7)(180) = 1,260 total degrees. 1,260 degrees total / 9 sides = 140 degrees per angle.

If each angle of the polygon is 140, then $x = 40$ because a straight line is 180 degrees and 180 - 140 = 40.

The correct answer is **40 degrees.**

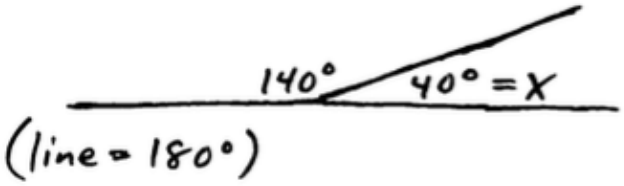
If you forget the formula, then an alternate method is to draw as many (non-overlapping) triangles as you can within the shape, using the vertexes.





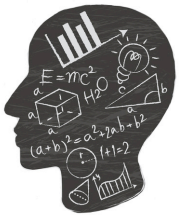
$\Delta = 180°$ so

$$(180°)(7) = \frac{1,260°}{9} = 140°$$



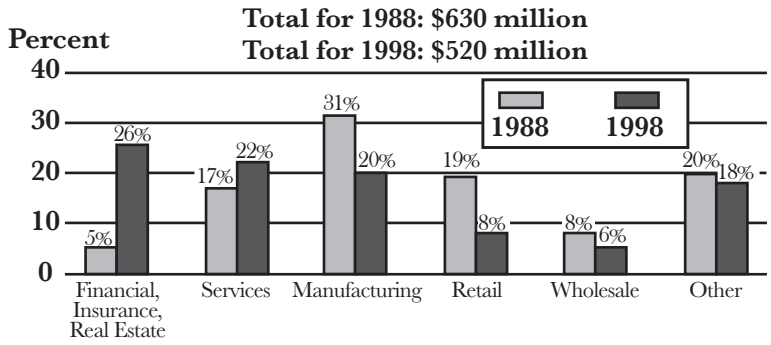
$\boxed{x = 40}$

The answer is **40 (**degrees).



14)

CORPORATE SUPPORT FOR THE ARTS BY SECTOR IN 1988 & 1991



How many of the six corporate sectors listed each contributed more than $60 million to the arts in both 1988 and 1991?

A. One
B. Two
C. Three
D. Four
E. Five

EXPLANATION: Almost anyone can get this question right given enough time. The real art here is learning how to get it right with a minimum of effort.

On the GRE it is very helpful to be able to estimate percentages in your head. If the numbers are close, then of course it makes sense to use the calculator to double-check, but don't let the calculator slow you down too much.

Pro tip: start training yourself to use the numerical keypad on your computer keyboard (assuming you have one — many laptops don't) instead of the mouse when using the on-screen calculator. This should speed you up a bit.

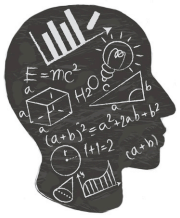
First of all, let's get an idea of the totals in our head. Let's use 10% as a comparison point, then double-check, if it's close, on the calculator.

10% of 520 million = 52 million
10% of 630 million = 63 million

Anything below about 10%, then, would not exceed $60 million.

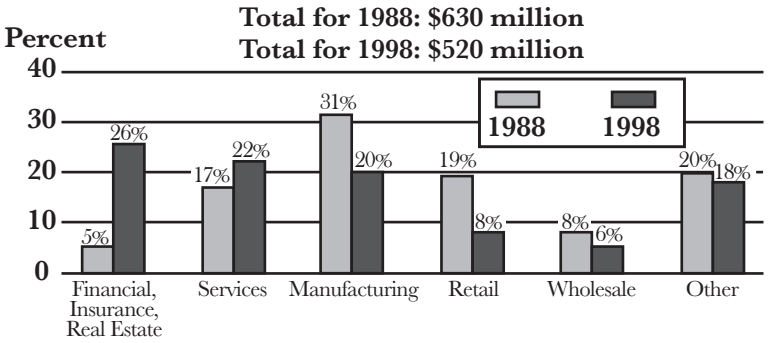
That rules out "Financial, Insurance, Real Estate (5% in 1988)," "Retail (8% in 1991)" and "Wholesale (6% in 1992)," leaving exactly three corporate sectors left, all of which comfortably exceed 10% in both of years mentioned.

Thus, the answer is **CHOICE C**.



15)

CORPORATE SUPPORT FOR THE ARTS BY SECTOR IN 1988 & 1991



From 1988 to 1991, which corporate sector decreased its support for the arts by the greatest dollar amount?

A. Services
B. Manufacturing
C. Retail
D. Wholesale
E. Other

EXPLANATION: Again, estimation is our friend here — let's not go robotically punching numbers into the calculator just yet. We are looking for the sector that *decreased* its support of the arts by the greatest dollar amount. Clearly, based on the bar graph, we can rule out Choices A, D and E. Now we use the calculator to compare between Choices B and C, which both have an 11% difference.

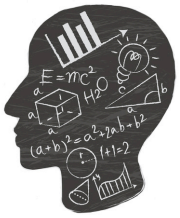
Manufacturing
31 percent of 630 million = (.31)(630) = 195.3 million
20 percent of 520 million = (.20)(520) = 104 million
Subtract. 195-104 = 91.3 million decrease.

Retail
19 percent of 630 million = (.19)(630) = 119.7 million
8 percent of 520 million = (.08)(520) = 41.6 million
Subtract. 119.7-41.6 = 78.1 million decrease.

Thus, the answer is **CHOICE B**, Manufacturing.

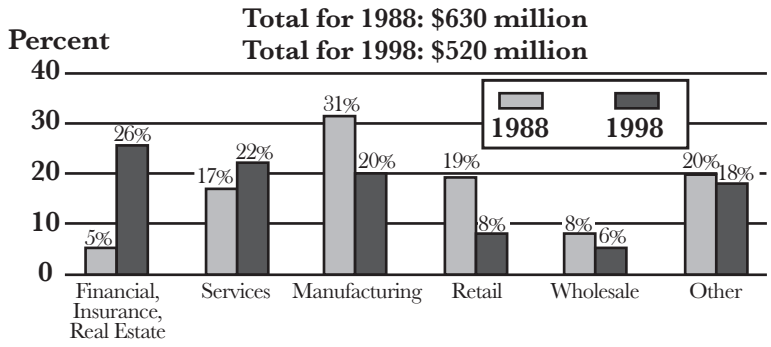
Concept: a lot of students will ask, "shouldn't B and C be the same amount, given that the difference is 11 percent for both sectors?" The answer is no because the 1991 amount is smaller than the 1988 amount.

Example
Reducing from 50% of 100 (50) to 40% of 10 (4) creates a difference of 46.
Reducing from 30% of 100 (30) to 20% of 10 (2) creates a difference of 28.



16)

CORPORATE SUPPORT FOR THE ARTS BY SECTOR IN 1988 & 1991



The two corporate sectors that increased their support for the arts from 1988 to 1991 made a total contribution in 1991 of approximately how many million dollars?

A. 112
B. 125
C. 200
D. 250
E. 315

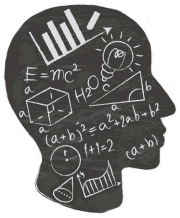
EXPLANATION: From the bar graph we can see that the two corporate sectors mentioned are clearly the first two ("Financial, Insurance, Real Estate" and "Services").

Now we must simply add up their total contributions in 1991. Easy.

26 percent of 520 million = (.26)(520) = 135.2
22 percent of 520 million = (.22)(520) = 114.4
Add. (135.2 + 114.4) = 249.6 million.

Alternatively, we could also skip a step by calculating (26 + 22) = 48 percent of 520 million = (.48)(520) = 249.6 million. Note that the reason we can do so is because, unlike the previous question, we are combining percentages *of the same number* (520 million).

The answer is **CHOICE D**.



17) If $a \leq b \leq c \leq d \leq e \leq 110$ and the average (arithmetic mean) of a, b, c, d, and e is 100, what is the least possible value of a?

A. 0
B. 20
C. 40
D. 60
E. 80

EXPLANATION: When the GRE asks you to calculate for the "least possible value" of a variable, and averages are involved, the correct solution almost always involves maximizing the rest of the variables, and vice-versa. Write it out.

If we maximize everything except a, then b, c, d, and e would all be 110. From there, we can set up an average equation to find a, since we know the five numbers average to 100:

$$\frac{a + 110 + 110 + 110 + 110}{5} = 100$$

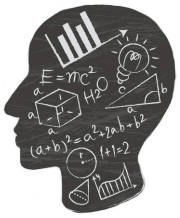
$a + 440 = 500$
$a = 60$

The correct answer is **CHOICE D**.

18) A car manufacturer produced a car at a cost of d dollars and sold it to a dealer at a price 20 percent higher than the production cost. If the dealer sold the car to a consumer for 15 percent more than the dealer paid for it, what did the car cost the consumer, in dollars?

A. $1.05d$
B. $1.23d$
C. $1.30d$
D. $1.35d$
E. $1.38d$

EXPLANATION: If the cost is d, then the dealer paid $1.2d$ (d plus 20 percent of d). The consumer paid 15 percent more than $1.2d$, which is the same thing as $(1.2d)(1.15) = 1.38d$, **CHOICE E.**



19) The function f is defined for all numbers x by $f(x) = x^2 + x$. If t is a number such that $f(2t) = 30$, which two of the following could be the number t?

Indicate *two* such numbers.

A. -5
B. -3
C. $-\frac{1}{2}$
D. 2
E. $\frac{5}{2}$

EXPLANATION: If $f(2t) = 30$, then we can find the possible answers for t in the choices by inputting double, or $2t$, the choice into the function to see which ones produce a result of 30.

Choice A is incorrect: (-10)(-10) = 100 + (-10) = 90

CHOICE B is correct (-6)(-6) = 36 + (-6) = 30

Choice C is incorrect (-1)(-1) = 1 + -1 = 0

Choice D is incorrect (4)(4)= 16 + 4 = 20

CHOICE E is correct: $(\frac{10}{2})(\frac{10}{2}) = 25 + (\frac{10}{2}) = 30$

$f(x) = x^2 + x$ replace x with 2t

$f(2t) = (2t)^2 + 2t = 30$

$4t^2 + 2t = 30$

recognize quadratic and set equal to zero $[4t^2 + 2t - 30 = 0] \div 2$

$2t^2 + t - 15 = 0$

FACTOR

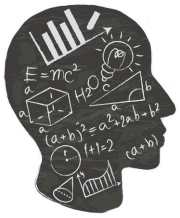
$(2t - 5)(t + 3) = 0$

TIP: if $(A)(B) = 0$ then $A = 0$ or $B = 0$ or both.

$2t - 5 = 0$ $\quad t + 3 = 0$

$2t = 5$ $\quad t = -3$

$t = \frac{5}{2}$ $\quad$ B/E



20) A tailor used 30 buttons that had an average (arithmetic mean) weight of x grams per button and 20 other buttons that had an average weight of 80 grams per button. Which of the following is the average weight per button, in grams, of the 50 buttons that the tailor used?

A. $\frac{x + (20)(80)}{50}$

B. $\frac{x + 80}{50}$

C. $\frac{3}{5}x + \frac{8}{5}$

D. $\frac{3}{5}x + 32$

E. $\frac{3}{5}x$

EXPLANATION: If you set up an average question, the numerator should be $30x + 20(80)$, which represents the weights of the 30 buttons added to the weights of the 20 buttons. The denominator is 50, since we're averaging 50 buttons.

$$\frac{30x + 20(80)}{50} = \frac{30x + 1600}{50}$$

Since this equation doesn't look like any of the choices quite yet, we need to look at our options and see which one looks like something we can rewrite our equation as. Choices A and B look bad since they get the denominator right but the numerator wrong, and Choice E looks bad because there's only one term and our equation shows there'll be an x term and a constant.

Taking a cue from Choices C and D, then, we need to produce a ⅗, which we can do by dividing the top and the bottom of the fraction by 50, which cancels the 50 in the denominator and leaves us with **CHOICE D**.

$$\frac{30x}{50} + \frac{1600}{50} = \frac{3}{5}x + 32$$

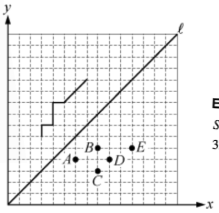
End of Powerprep Test 1

Vince and Brian's GRE PowerPrep 2 Explanations TEST 2

Easy Explanations for Mere Mortals

#12 $\frac{1}{2^{10}} = \frac{1}{4^5} = \frac{1}{4 \cdot 4 \cdot 4 \cdot 4 \cdot 4}$ = USE CALC.

$\frac{1}{1,024} = .00097 < .001$? yes. thus, A

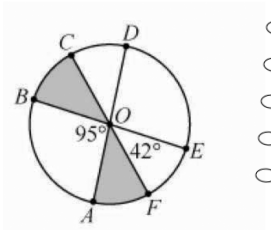


20) The quantities S and T are positive and are related by the equation $S = k/T$, where k is a constant. If the value of S increases by 50 percent, then the value of T decreases by what percent?

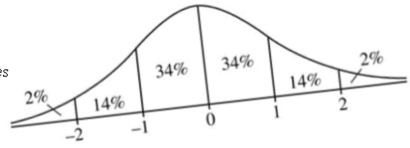
A) 25%
B) 33 and ⅓ %
C) 50%
D) 66 and ⅔ %
E) 75%

Explanation: Obviously, don't just assume that the answer is C. Test it.
$S = k/T$. *Make it true.* $5 = 15/3$. *so* $k = 15$. $1.5\,(5) = 15/x$, $7.5x = 15$, $x = 2$. *X went from* 3 *to* 2 *which is a* 33% *decrease.* % *change* = (*difference*/*original*) $x\,100 = ((3-2)/3)\,x\,100 = (1/3)\,x\,(100) = 33\%$

The quantities S and T are positive and are related by the equation $S = \frac{k}{T}$, where k is a constant. If the value of S increases by 50 percent, then the value of T decreases by what percent?



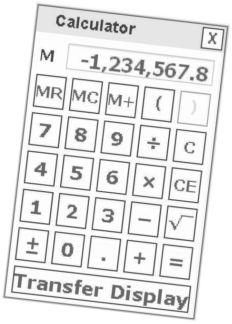
- 25%
- $33\frac{1}{3}\%$
- 50%
- $66\frac{2}{3}\%$
- 75%



10, 10, 10, 10, 8, 8, 8, 8, 12, 12, 11, y

The twelve numbers shown represent the ages, in years, of the twelve houses on a certain city block. What is the median age, in years, of the twelve houses on the block?

[ ] years



4) There has been much hand-wringing about how unprepared American students are for college. Graff reverses this perspective, suggesting that colleges are unprepared for students. In his analysis, the university culture is largely (i) _____ entering students because academic culture fails to make connections to the kinds of arguments and cultural references that students grasp. Understandably, many students view academic life as (ii) _____ ritual.

A. primed[8] for
B. opaque[10] to
C. essential for
D. an arcane[9]
E. a laudable[11]
F. a painstaking[12]

Explanation: Blank (i) is explained by the rest of the sentence it's in. It makes sense that the culture is unclear, or opaque (**Choice B**) to students "because academic culture fails to make connections" to the things "students grasp". The last sentence continues this sentiment, so **Choice D** works for Blank (ii); "an arcane" ritual would be one students find hard to understand.

Dramatic literature often _____ the history of a culture in that it takes as its subject matter the important events that have shaped and guided the culture.

confounds
repudiates
recapitulates
anticipates
polarizes

PowerPrep Test 2

Verbal

1. James Boswell's *Life of Samuel Johnson* is generally thought to have established Boswell as the first great modern biographer; yet the claim of _____ could be made for Johnson himself as author of a life of Richard Strange.

   A. partisanship[111]
   B. omniscience[112]
   C. precedence
   D. opportunism[113]
   E. perseverance

EXPLANATION: The key word here is "himself": its use suggests that perhaps the subject of the biography (Johnson) could also be considered in the same category as Boswell. Think about it: "I am a great painter" implies that I have a high opinion of my painting. However, "I am a great painter myself" implies that I am comparing myself to another great painter. Thus, the answer is **CHOICE C**, "precedence," because it implies that Johnson may have gotten there first. To precede is to come before.

CHOICE A: "Partisan" = biased. No evidence of bias.

CHOICE B: "Omniscient" = all-knowing. No non-fiction biographer is omniscient.

CHOICE C: "Precedence" = coming before/first = Correct.

CHOICE D: An opportunist is one who takes advantage of an opportunity, usually for his/her own gain and often harming others in the process. No evidence for "opportunism."

CHOICE E: To "persevere" is to keep going. Disregard this answer because there is no evidence for it.

---

[111] **partisan** (adjective): biased toward one side.
Think: **Party's son**.
The chairman of the Democratic **Party's son** was understandably **partisan** about politics.

[112] **omniscient** (adjective): all-knowing.
Think: owns his science.
I'm not surprised to hear that Jesus got an A in AP Chem; he **owns his science** classes because he's **omniscient**.

[113] **opportune** (adjective): well-timed.
Think: **opportunity**.
It's **opportune** that I got picked for this singing **opportunity** because a genie just granted my wish to sing perfectly.

2. Most spacecraft are still at little risk of collision with space debris during their operational lifetimes, but given the numbers of new satellites launched each year, the orbital environment in the future is likely to be less _____

A. crowded
B. invulnerable
C. protected
D. polluted
E. benign

EXPLANATION: The first part of this sentence gives us a positive outlook on the risk of spacecraft colliding within space debris, which is contrasted in the second part ("but given the new numbers of new satellites launched each year...") will a less rosy outlook. However, this less rosy outlook is preceded by a "less." If we are pessimistic, then we are "less" optimistic. Hence we look for a positive word of some sort.

"Less…"

CHOICE A: "Crowded." Careful on this one — it's a decoy. Yes, the orbital environment in the future will be crowded, but not "less crowded."

CHOICE B: "Invulnerable." Another decoy. "Less invulnerable" means "more vulnerable," which is close to what we are looking for, but not quite, because it's not the environment that's vulnerable, it's the spacecraft.

CHOICE C: "Protected." Not quite. Again, the spacecraft will be "less protected," but the orbital environment won't.

CHOICE D: "Polluted." No evidence of this.

CHOICE E: "Benign" = harmless. "Less harmless" = more harmful. We can describe the environment as *harmful to spacecraft*, hence the answer is **CHOICE E.**

3. The unironic representation of objects from everyday life is (i) _____ serious American art of the twentieth century: "high" artist ceded the straightforward depiction of the (ii) _____ to illustrators, advertisers, and packaging designers.

Blank (i)	**Blank (ii)**
A. missing from	D. beautiful
B. valued in	E. commonplace
C. crucial to	F. complex

EXPLANATION: The first blank references the relationship between "unironic representations" of everyday objects and serious art of the twentieth century, which is not explained until after the colon. There, we find out that the "high" artist (code for "serious American artist") ceded (*to give away*) the depiction to others.

This is where vocab is so crucial on the GRE. If you know that "ceded" means "gave up / left to others" then you would realize that it was **CHOICE A**, "missing from" serious American art of the 20th century. The second blank is easier: objects from everyday life are easily classified as "commonplace" (**CHOICE E**).

For blank (i), "valued in" is wrong because we have no evidence of anyone valuing anything, and "crucial to" is wrong because the part of the sentence after the colon doesn't explain how anything is crucial. For blank (ii), "beautiful" is wrong — you might naturally associate beauty with art, but art need not be beautiful. "Complex" is wrong because nothing in the sentence supports complexity.

4. Television promotes (i) _____ of emotion in the viewer through an unnatural evocation, every five minutes, of different and (ii) _____feelings.

Blank (i)	**Blank (ii)**
A. a withdrawal	D. incompatible
B. an obscuring	E. sympathetic
C. a discontinuity	F. interminable

EXPLANATION: The first blank refers to the emotion promoted in the viewer. Later in the sentence we are told that every five minutes, different feelings are *evoked* (brought about) in an unnatural way. This supports **CHOICE C**, "discontinuity," meaning "a break in continuity," which is what is described by the array of *different* feelings being thrown at the television viewer. Choice A (a withdrawal) might seem reasonable, given that one certainly *could* withdraw emotionally in response to such an onslaught (I certainly might), but there is no evidence in the sentence to support this, so we must avoid being tempted. Choice B (an obscuring) is similar in that it is a possible consequence, but that there is no evidence in its support.

For the second blank, it's easier. "Different and incompatible" feelings **(CHOICE D)** is clearly the best choice here. Choice E (sympathetic) might remind the test-taker of the word "feelings," but it certainly isn't supported in any meaningful way (not all feelings are sympathetic). Choice F (interminable) means "never ending," for which there is no support.

The answer is **CHOICES C and D**.

5. While the cerulean warbler's status may be particularly (i) _____ , it is just one of the many species of migrant birds whose numbers have been (ii) _____ for years. Increasingly, biologists investigating the causes of these (iii) _____ are focusing on habitat loss in the Tropics, where the birds spend the winter.

	Blank (i)	**Blank (ii)**	**Blank (iii)**
A.	precarious[114]	D. underreported	G. pairings
B.	secure	E. falling	H. migrations
C.	representative	F. copious[115]	I. declines

EXPLANATION: When in doubt, start with simple words of your own choosing that help fit the blank. Don't worry about over-simplifying; the simpler, the better. From the context of this sentence we can probably guess that the cerulean warbler's status may be "particularly bad," given that this is usually the case when we mention the fate of a particular species on this planet. However this is not confirmed until the reference to "habitat loss." Hence, **CHOICE A** ("precarious" = doubtful and uncertain), as the only negative answer out of the three, is our obvious choice. Choice B (secure) is the exact opposite of the correct answer. Choice C (representative) sounds OK at first, but the sentence doesn't explain what the species would be representative of, so it leaves the reader hanging.

For blank (ii), Choice D, "underreported," sounds, well, reporterly, and there is no evidence provided to support this. Given the evidence provided, it is clear that the numbers of cerulean warblers have been "falling" (**CHOICE E**). Choice F (copious) means "having large amounts of," which clearly DOESN'T work here and is perhaps but there as a "sibling decoy" to match Choice B.

For blank (iii), by the time you arrive it becomes clear that "declines" (**CHOICE I**) is the obvious answer. Don't be fooled by Choice H ("migrations"); yes, they are migratory birds, but their migration is not the issue being discussed here. Choice G, "pairings," has no support in the sentence.

The answer is **CHOICE A, E, I**.

---

114 **precarious** (adjective): dangerously unstable.
Think: **preach carefulness**.
Preach carefulness to people who are standing on **precarious** rock ledges.

114 **copious** (adjective): plentiful.
Think: **copy us**.
If the zombie apocalypse happens and we survive, let's hope cloning can **copy us** and make humans more **copious**.

6. The recent publication of the painter Robert Motherwell's substantial body of writing, as well as writings by fellow Expressionist Barnett Newman, (i) _____ Ann Gibson's assertion that the Abstract Expressionists were reluctant to (ii) _____ issues of artistic meaning in their work and suggests that this supposed reticence was perhaps more artistic (iii) _____than historical fact.

	Blank (i)	**Blank (ii)**	**Blank (iii)**
A.	substantiates[116]	D. forgo	G. conscience
B.	undermines[117]	E. articulate[118]	H. focus
C.	overlooks	F. conceal	I. posturing

EXPLANATION: This is a tough one, since we don't get a whole lot to work with. We are told that the painter has a "substantial body of writing" which has been recently published, and that its publication suggests something about Ann Gibson's assertion. Later, we read the phrase "supposed reticence," which suggests that the author doubts this idea.

For example, "I heard about your *supposed* girlfriend" suggests that the speaker doubts whether the girlfriend is real.

Clearly, in the first blank the publication of a "substantial" body of writing would not support the idea of reticence (reluctance to talk or analyze something). Rather, it would contradict it, hence, **CHOICE B** ("undermines" = contradicts).

For the second blank, remember that we are not describing the author's opinion, but Anne Gibson's assertion (the one the author disagrees with). Gibson asserted that the Abstract expressionists were reluctant to analyze / expound upon their work, hence **CHOICE E** ("articulate" = to state clearly).

Choice D "forgo" means "to give up," which doesn't make sense because they never did so in the first place.

For the last blank, the narrator tells us that "this supposed reticence was perhaps more artistic _____ than historical fact," suggesting that the former is the opposite of the latter. The opposite of a fact is something fictional or invented, hence, **CHOICE I** ("posturing" = pretending).

The answer is **CHOICE B, E, I**.

---

116 **substantiate** (verb): to support with proof or evidence.
Think: **substance**.
You won't be able to **substantiate** your claim that I ate your lunch without evidence that has more **substance**.

117 **undermine** (verb): to weaken in a sneaky way.
Think: **under mine**.
Under the ground lay a land **mine** designed to **undermine** the army's advance.

118 **articulate** (adjective): using clear, expressive language.
Think: **article**.
Oscar Wilde was so **articulate** that his conversational speech could be used as a newspaper **article** without any editing.

Question 7 is based on the following passage.

> A portrait type that appeared with relentless frequency in eighteenth-century England is the familiar image of a gentleman poised with one hand inside his partially unbuttoned waistcoat. Standard interpretations of this portrait posture offer observations of correspondence — demonstrating either that it mirrors actual social behavior or that it borrows from classical statuary. Such explanations, however, illuminate neither the source of this curious convention nor the reason for its popularity. It is true that in real life the "hand-in" was a common stance for elite men. Still, there were other ways of comporting the body that did not become winning portrait formulas. And even if the "hand-in" portrait does resemble certain classical statues, what accounts for the adoption of this particular pose?

Consider each of the choices separately and select all that apply.

7. Which of the following might provide an explanation for the popularity of hand-in portraits that would satisfy the author of the passage?

   A. An eighteenth-century English etiquette manual discussing the social implications of the "hand-in" stance.
   B. A comprehensive catalogue of eighteenth-century English portraits that showed what proportion of portraits depicted gentlemen in the "hand-in" stance.
   C. A passage from an eighteenth-century English novel in which a gentleman considers what stance to adopt when his portrait is painted.

EXPLANATION: This is an unusual question; we're asked to consider what "might" have an explanation. **CHOICE A** is correct; a discussion of the social implications of the stance might explain their popularity. **CHOICE C** is also correct; a character's consideration of his stance might also explain why the "hand-in" was popular. Choice B is incorrect because merely knowing what percentage of portraits depicted the stance could not explain WHY the stance was popular.

Question 8 is based on the following passage.

> Recently an unusually high number of dolphins have been found dead of infectious diseases, and most of these had abnormally high tissue concentrations of certain compounds that, even in low concentrations, reduce dolphins' resistance to infection. The only source of these compounds in the dolphins' environment is boat paint. Therefore, since dolphins rid their bodies of the compounds rapidly once exposure ceases, their mortality rate should decline rapidly if such boat paints are banned.

8. Which of the following, if true, most strengthens the argument?

A. The levels of the compounds typically used in boat paints today are lower than they were in boat paints manufactured a decade ago.
B. In high concentrations, the compounds are toxic to many types of marine animals.
C. The compounds break down into harmless substances after a few months of exposure to water or air.
D. High tissue levels of the compounds have recently been found in some marine animals, but there is no record of any of those animals dying in unusually large numbers recently.
E. The compounds do not leach out of the boat paint if the paint is applied exactly in accordance with the manufacturer's directions.

EXPLANATION: The argument is the last sentence, paraphrased as "Banning paint will save more dolphins since they get rid of compounds quickly." The correct answer is **CHOICE C**, because that choice shoots down a potential problem with the argument; i.e. if the compounds NEVER break down, the argument is harder to make. Once we know that the compounds DO break down, it's easier to believe the argument.

CHOICE A: Maybe the levels are 0.0001% lower, or maybe they're 99% lower. We don't know, which is one reason this choice doesn't necessarily affect the argument.

CHOICE B: There's no necessary connection between what happens to other marine mammals and what happens to dolphins — plus, this has nothing to do with dolphins dying less often.

CHOICE D: This doesn't necessarily have anything to do with dolphins, nor does it really comment on the banning of boat paints.

CHOICE E: Who knows if the boat paint will be applied the right way? This doesn't have to affect the argument, either.

Questions 9 through 12 are based on the following passage.

The work of English writer Aphra Behn (1640 –1689) changed markedly during the 1680s, as she turned from writing plays to writing prose narratives. According to literary critic Rachel Carnell, most scholars view this change as primarily motivated by financial considerations: earning a living by writing for the theatre became more difficult in the 1680s, so Behn tried various other types of prose genres in the hope of finding another lucrative medium. In fact, a long epistolary scandal novel that she wrote in the mid-1680s sold quite well. Yet, as Carnell notes, Behn did not repeat this approach in her other prose works; instead, she turned to writing shorter, more serious novels, even though only about half of these were published during her lifetime. Carnell argues that Behn, whose stage productions are primarily comedies, may have turned to an emerging literary form, the novel, in a conscious attempt to criticize, and subvert for her own ends, the conventions and ideology of a well-established form of her day, the dramatic tragedy.

Carnell acknowledges that Behn admired the skill of such contemporary writers of dramatic tragedy as John Dryden, and that Behn's own comic stage productions displayed the same partisanship for the reigning Stuart monarchy that characterized most of the politically oriented dramatic tragedies of her day. However, Carnell argues that Behn took issue with the way in which these writers and plays defined the nature of tragedy. As prescribed by Dryden, tragedy was supposed to concern a heroic man who is a public figure and who undergoes a fall that evokes pity from the audience. Carnell points out that Behn's tragic novels focus instead on the plight of little-known women and the private world of the household; even in her few novels featuring male protagonists, Behn insists on the importance of the crimes these otherwise heroic figures commit in the domestic sphere. Moreover, according to Carnell, Behn questioned the view promulgated by monarchist dramatic tragedies such as Dryden's: that the envisioned "public" political ideal — passive obedience to the nation's king — ought to be mirrored in the private sphere, with family members wholly obedient to a male head of household. Carnell sees Behn's novels not only as rejecting the model of patriarchal and hierarchical family order, but also as warning that insisting on such a parallel can result in real tragedy befalling the members of the domestic sphere. According to Carnell, Behn's choice of literary form underscores the differences between her own approach to crafting a tragic story and that taken in the dramatic tragedies, with their **artificial distinction** between the public and private spheres. Behn's novels engage in the political dialogue of her era by demonstrating that the good of the nation ultimately encompasses[119] more than the good of the public figures who rule it.

---

[119] **encompass** (verb): to include.
Think: **compass**.
Use this **compass** to draw a circle around the things you want to **encompass**.

9. The passage is primarily concerned with

A. tracing how Behn's view of the nature of tragedy changed over time
B. explaining one author's view of Behn's contribution to the development of an emerging literary form.
C. differentiating between the early and the late literary works of Behn.
D. contrasting the approaches to tragedy taken by Behn and by Dryden
E. presenting one scholar's explanation for a major development in Behn's literary career.

EXPLANATION: Tellingly, the first sentence of the passage discusses how Behn "turned from writing plays to writing prose narratives." Further confirmation that the passage is about Behn's career is found in the last sentence of the first paragraph, which mentions Behn turning to an "emerging literary form" and briefly explains why. The second paragraph goes into more detail about why Behn wrote novels: to subvert[120] in her view what was dramatic tragedy's hidebound, patriarchal status quo. Therefore, **CHOICE E** is correct.

CHOICE A: Wrong — the passage doesn't ever say Behn had more than one view on the nature of tragedy.

CHOICE B: This is a common wrong answer and is not correct because, though the passage does talk about Behn's contribution, it does not focus on Carnell's view of that contribution.

CHOICE C: The passage focuses on Behn vs. the status quo and doesn't focus on Behn's early vs. late works.

CHOICE D: Although Behn's approach to tragedy is contrasted with Dryden's, this contrast is not the main focus of the passage and is therefore a bad answer to the question being asked.

---

[120] **subvert** (verb): to weaken or ruin.
Think: **sub hurt**.
Captain: the torpedo from that **sub hurt** our ship and **subverted** our morale.

10. The passage suggests that Carnell sees Behn's novels featuring male protagonists as differing from dramatic tragedies such as Dryden's featuring male protagonists in that the former

    A. depict these characters as less than heroic in their public actions.
    B. emphasize the consequences of these characters' actions in the private sphere.
    C. insist on a parallel between the public and the private spheres.
    D. are aimed at a predominantly female audience.
    E. depict family members who disobey these protagonists.

EXPLANATION: this is a long question, so don't be afraid to read it twice to yourself, slowly, and even "lip-synch" if necessary. The first thing I choose to focus on is the *end* of the question, since that's where the question (or, more accurately, the incomplete sentence) attaches to the answer choices.

"The former"= the first thing mentioned, so the question is asking about Behn's novels featuring male protagonists, in comparison to Dryden's. Once I know that the question concerns the different approaches of Behn and Dryden, I skim the passage for those topics. I look for specific language of difference, and find some here:

> As prescribed by Dryden, tragedy was supposed to concern a heroic man who is a public figure and who undergoes a fall that evokes pity from the audience. Carnell points out that Behn's tragic novels *focus instead on the plight of little-known women and the private world of the household; even in her few novels featuring male protagonists, Behn insists on the importance of the crimes these otherwise heroic figures commit in the domestic sphere.*

ANSWER ANALYSIS:

CHOICE A: There is no emphasis on public actions. No.

CHOICE B: Private sphere = "Household" = "Domestic Sphere." Yes.

CHOICE C: No parallel mentioned. No.

CHOICE D: This is not mentioned, so choose this answer would be presumptuous. Yes, Behn's novels feature women in the domestic sphere but there is no evidence that they were aimed at a female audience, likely as that may have been. No.

CHOICE E: The author refers to "crimes...in the domestic sphere" but there is no proof that these crimes were committed against the male protagonists. No.

The correct answer is **CHOICE B**.

11. The passage suggests that Carrell believes Behn held which of the following attitudes about the relationship between the private and public spheres?

    A. The private sphere is more appropriate than is the public sphere as the setting for plays about political events.
    B. The structure of the private sphere should not replicate the hierarchical order of the public sphere.
    C. Actions in the private sphere are more fundamental to ensuring the good of the nation than are actions in the public sphere.
    D. Crimes committed in the private sphere are likely to cause tragedy in the public sphere rather than vice versa.
    E. The private sphere is the mirror in which issues affecting the public sphere can most clearly be seen.

EXPLANATION: this could be classified as a main idea question, even though there is no giveaway language of the sort, because the relationship between the private and public spheres is a major issue in the passage.

For "which" questions, it is usually most effective to start with the answer choices right away, so let's try that method here.

CHOICE A: Behn's focus was not on political events, nor their appropriate setting. Avoid answers with explicit comparisons unless there is explicit evidence for such comparisons.

CHOICE B: Correct. Behn did not want the private sphere to reflect the public sphere.

CHOICE C: Behn's focus was not on the good of the public sphere. Again, avoid answers with explicit comparisons unless there is explicit evidence for such comparisons.

CHOICE D: Not to sound like a broken record here, but you should avoid answers that make specific claims/comparisons without specific proof. There are plenty of mentions of tragedy in the passage, but none that specify to this degree.

CHOICE E: This sounds nice, but isn't supported anywhere, and it omits her main focus on the hierarchical nature of society.

The answer is **CHOICE B**.

12. It can be inferred from the passage that the "artificial distinction" refers to the

    A. practice utilized in dramatic tragedies of providing different structural models for the public and the private spheres.
    B. ideology of many dramatic tragedies that advocate passive obedience only in the private sphere and not in the public sphere.
    C. convention that drama ought to concern events in the public sphere and that novels ought to concern events in the private sphere.
    D. assumption made by the authors of conventional dramatic tragedies that legitimate tragic action occurs only in the public sphere.
    E. approach taken by the dramatic tragedies in depicting male and female characters differently, depending on whether their roles were public or private.

EXPLANATION: The phrase "artificial distinction" implies that the distinction (that between public and private spheres) is not natural or appropriate, letting us know that we should be looking for a negative answer.

CHOICE A: No, we are told that in the dramatic tragedies, the public and the private spheres are mirrored.

CHOICE B: The first 5 words are correct, but again, we are told that in the dramatic tragedies, the public and the private spheres are mirrored, not different.

CHOICE C: No such distinction was drawn between novels and drama.

CHOICE D: Correct. We are told that Behn focuses on tragedies in the private sphere, not just the public sphere, and this is supported by the last sentence of the passage, which reminds us of the importance of domestic life in addition to public life.

CHOICE E: This issue has nothing to do with male vs. female, only the public vs. private sphere.

Select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.

13. The spy's repeated bungling[121] was, above all else, _____ those who wished to thwart her efforts, since it was so unpredictable as to obscure any pattern that might otherwise lead to capture.

A. an obstacle to
B. a signal to
C. a hindrance to
D. an indication for
E. a snare for
F. a boon[122] to

EXPLANATION: The situation described is an ironic one; despite the fact that the spy keeps messing up ("bungling"), her mistakes are so unpredictable that they in fact keep her from being caught.

As we can tell from a quick glance at the answer choices, the blank refers to the relationship between her bungling and those who wished to catch her ("thwart her efforts"). Since her bungling is that which actually *prevents them* from catching her, the correct answers are **CHOICE A** "an obstacle to" and **CHOICE C** "a hindrance to."

CHOICE B: a signal would help, not hurt, her enemies.

CHOICE D: similar to B.

CHOICE E: "a snare (trap) for" just doesn't make any sense.

CHOICE F: a boon is something positive or good, which is the opposite of what we're looking for. The spy's unpredictable bungling is "a boon to" the spy, but not to her enemies.

---

[121] **bungle** (verb): to screw up.
Think: **bunghole**.
I **bungled** the job so many times that they started calling me a "**bunghole**."

[122] **boon** (noun): a benefit.
Think: **booing**.
One **boon** of **booing** is that it unites an audience in mutualunappreciation.

14. Female video artists' rise to prominence over the past 30 years has _____ the ascent of video as an art form: it is only within the past three decades that video art has attained its current, respected status.

    A. matched
    B. politicized
    C. paralleled
    D. obviated
    E. accelerated
    F. forestalled[123]

EXPLANATION: Again, the key here is clarifying the relationship between the element before the blank ("Female video artists' rise...") and the element after the blank ("the ascent of video as an art form"). Ascent is a fancy word for "rise," hence we are looking for the relationship between the *rise of the female video artist* and the *rise of video as an art form*.

After the colon, which is where the explanation usually occurs, ...

This is a somewhat confusing sentence, because there doesn't seem to be enough information to connect the two at first glance. However, once we realize that a "female video artist" is dependent on the video medium, it becomes clear that the rise of the female video artist is dependent upon the overall success/popularity of the video genre.

Hence, we start by looking for answers that show a strong connection.

CHOICE A: Kind of a boring choice, but you don't get points for originality. Yes, "matched" works because it shows a strong connection.

CHOICE B: To politicize is to turn something into a hot-button political issue that is based upon ideology and partisanship. There is no evidence of this—too specific. No.

CHOICE C: To parallel is to move in the same direction, which also shows a strong connection. Yes.

CHOICE D: The word obviate looks like "obvious," but the word obvious has nothing to do with its meaning. To obviate is to make unnecessary, which clearly does not work here if you know the definition.

CHOICE E: To forestall is to stop or delay (something) or to act before (someone else), which, if you know the definition, doesn't work here.

The correct answers are **CHOICES A** and **C**.

---

[123] **forestall** (verb): to delay, hinder, or prevent.
Think: **for stall**.
The booby traps I surrounded my fort with will **forestall** invaders – they're **for stalling.**

15. Although the film is rightly judged imperfect by most of today's critics, the films being created today are _____ it, since its release in 1940 provoked sufficient critical discussion to enhance the intellectual respectability of cinema considerably.

A. beholden to
B. indebted to
C. derivative[124] of
D. based on
E. distinguishable from
F. biased against

EXPLANATION: Because the blank is initially contrasted with the idea that the film is judged imperfect (negative), we might incorrectly guess that the blank is going to consist of something positive. However, doing so would be to confuse the film itself with the "films being created today," which is the actual subject of the blank. Later in the sentence we are told that the film "provoked critical discussion" and "enhance(d) intellectual respectability," which are clearly good things.

CHOICE A: "Beholden to" = this means "owing to," which works because today's films owe a debt to this (admittedly flawed) old film, because of its groundbreaking nature.

CHOICE B: "Indebted to" = this has the same meaning as A, and completes the synonym pair.

CHOICE C: There is no evidence in this sentence that the new films have derived any of their content from the old film.

CHOICE D: There is no evidence in this sentence that the new films are "based on" the old film.

CHOICE E: While it is of course *true* that today's films are "distinguishable from" the old film, this is not the answer supported by the text, nor does it have a synonym pair in any of the other answer choices.

CHOICE F: There is no evidence of bias.

The correct answers are **CHOICES A and B**.

---

[124] **derivative** (adjective): lacking originality.
Think: **derivative relatives**.
My father likes to claim that his recipes are unique, but the truth is that he learned everything he knows about cooking from Aunt Jean. In other words, his recipes are **derivative** of his **relative**.

16. The detective's conviction that there were few inept crimes in her district led her to impute some degree of _____ to every suspect she studied.

A. deceit
B. acumen[125]
C. duplicity
D. shrewdness[126]
E. evasiveness[6]
F. equivocation

EXPLANATION: Two questions to ask yourself:

What is the blank describing? The suspects she studied.

Where else is this mentioned? She is convinced that *few* of the crimes in her district are *inept*. Inept = not skilled, so if few crimes are not skilled, then that creates a double negative (few + not), which means that she believes the criminals in her area to in fact be skilled. Thus, we are looking for answers that are close to "skilled."

CHOICE A: "Deceit" (attempting to fool someone) is common to criminals, but not the specific ones she is describing.

CHOICE B: "Acumen" = skills, so yes. Think "accurate men."

CHOICE C: "Duplicity" (double-dealing) is a synonym pair with Choice A, but again, there is no supporting language.

CHOICE D: "Shrewdness" is the state of being clever, and is a synonym pair with Choice B. Yes.

CHOICE E: "Evasiveness" is the state of avoiding, and (again, though this is common to criminals) this does not work because it is not supported.

CHOICE F: "Equivocation" is the avoidance of the truth, which does not work for the same reason that Choice E (its synonym pair) does not work.

Wow, notice the three different synonym pairs on that one, which is uncommon, and helps explain why only 33% of students answered this one correctly.

The correct answers are **CHOICES B** and **D**.

---

125 **acumen** (noun): insightfulness.
Think: **accurate men**.
In business, **accurate men** usually have **acumen**.

126 **shrewd** (adjective): clever.
Think: **sued**.
The **shrewd** attorney **sued** as many people as she could; she knew her superior knowledge of the law would make her win.

Question 17 is based on the following passage.

> Extensive housing construction is underway in Pataska Forest, the habitat of a large population of deer. Because deer feed at the edges of forests, these deer will be attracted to the spaces alongside the new roads being cut through Pataska Forest to serve the new residential areas. Consequently, once the housing is occupied, the annual number of the forest's deer hit by cars will be much higher than before construction started.

17. Which of the following is an assumption on which the argument depends?

A. The number of deer hit by commercial vehicles will not increase significantly when the housing is occupied.

B. Deer will be as attracted to the forest edge around new houses as to the forest edge alongside roads.

C. In years past, the annual number of deer that have been hit by cars on existing roads through Pataska Forest has been very low.

D. The development will leave sufficient forest to sustain a significant population of deer.

E. No deer hunting will be allowed in Pataska Forest when the housing is occupied.

EXPLANATION: Identifying the assumption of an argument is often closely related to finding alternate explanations for a phenomenon. An argument consists of two main elements: 1) the premise (better known as "evidence") and 2) the conclusion. The premise in this case is that deer tend to feed on the edges of forests, and that the extensive construction of a new housing development will create more such edges. The conclusion is that the number of deer hit by cars will drastically increase.

In between the premise and the argument lies the inference (better known as "reasoning"), that which connects the premise to the conclusion in a convincing way.

In real life, you can attack an argument by disputing the validity of the premise itself ("that's not true,""your data is incorrect/flawed," etc.), but on the GRE that's not an option. Thus, you must attack the argument by attacking the inference.

An assumption of an argument is that which the argument depends upon for its validity. Hence, an assumption can be thought of as something that, if not true, invalidates the argument. This is called the *assumption negation technique*. Let's give it a try with the answer choices.

CHOICE A: This is what could be classified as an "extraneous detail." Whether the houses are occupied or not has nothing to do premise or conclusion of the argument. Even if this were not true, then the conclusion could still be possible.

CHOICE B: Choosing this would indicate a misreading of the question, since the author says nothing about the edges of houses, only the edges of roads. Even if this were not true, then the conclusion could still be possible.

CHOICE C: Years past have no relevance to the future, since the conditions will be different once the development is built. Even if this were not true, then the conclusion could still be possible.

CHOICE D: Yes, this is our correct answer. If this answer were not true ("the development will NOT leave sufficient forest to sustain a significant population of deer"), then the author's conclusion ("the annual number of the forest's deer hit by cars will be much higher than before construction started") would be impossible, because there would be no deer around to get hit by the cars. There is also a clue in the very first word of the passage, which indicates that the construction is going to be extensive.

CHOICE E: The topic of deer hunting is logically unrelated to the topic of deer being hit by cars. Thus, negating this statement would have no effect on the conclusion.

The correct answer is **CHOICE D**.

Questions 18 through 20 are based on the following passage.

Historian F. W. Maitland observed that legal documents are the best — indeed, often the only — available evidence about the economic and social history of a given period. Why, then, has it taken so long for historians to focus systematically on the civil (noncriminal) law of early modern (sixteenth- to eighteenth-century) England? Maitland offered one reason: the subject requires researchers to "master an extremely formal system of pleading and procedure." Yet the complexities that confront those who would study such materials are not wholly different from those recently surmounted by historians of criminal law in England during the same period. Another possible explanation for historians' neglect of the subject is their **widespread assumption** that most people in early modern England had little contact with civil law. If that were so, the history of legal matters would be of little relevance to general historical scholarship. But recent research suggests that civil litigation during the period involved artisans, merchants, professionals, shopkeepers, and farmers, and not merely a narrow, propertied, male elite. Moreover, the later sixteenth and early seventeenth centuries saw an extraordinary explosion in civil litigation by both women and men, making this the most litigious era in English history on a per capita basis.

18. The author of the passage mentions the occupations of those involved in civil litigation in early modern England most likely in order to

A. suggest that most historians' assumptions about the participants in the civil legal system during that period are probably correct.
B. support the theory that more people participated in the civil legal system than the criminal legal system in England during that period.
C. counter the claim that legal issues reveal more about a country's ordinary citizens than about its elite.
D. illustrate the wide range of people who used the civil legal system in England during that period.
E. suggest that recent data on people who participated in early modern England's legal system may not be correct.

EXPLANATION: Even the Reading Comprehension portions of the GRE Verbal are closely related to the structure of an argument at times. In this case, the author is using the argument-strengthening strategy of "eliminating an opposing argument" by providing evidence that people from all classes were involved in the civil courts system.

Let's evaluate.

CHOICE A: No, the historians' assumption in this case was that "most people in early modern England had little contact with civil law," which is not supported by the evidence here.

CHOICE B: Clearly a decoy answer, because it's close to correct. However, it's not correct because of the explicit comparison (civil vs. criminal legal system) that is unsupported by evidence.

CHOICE C: Another decoy answer! The author is trying to counter a claim about legal issues, but not the one mentioned (if anything, it's the opposite order, but even the opposite order is only implied).

CHOICE D: Correct. This answer doesn't try to do too much, but it's 100% right.

CHOICE E: Clearly incorrect, as the author is not disputing any data here.

The correct answer is **CHOICE D**.

19. The author of the passage suggests which of the following about the "widespread assumption"?

    A. Because it is true, the history of civil law is of as much interest to historians focusing on general social history as to those specializing in legal history.
    B. Because it is inaccurate, the history of civil law in early modem England should enrich the general historical scholarship of that period.
    C. It is based on inaccurate data about the propertied male elite of early modern England.
    D. It does not provide a plausible[127] explanation for historians' failure to study the civil law of early modem England.
    E. It is based on an analogy with criminal law in early modem England.

EXPLANATION: Looking back at the passage, the "widespread assumption" is that few people in early modern England had contact with civil law. If we keep reading for a bit, we see that the author believes this assumption to be wrong; he goes on to make the case that many types of people had dealings involving civil law. So, we can predict something like "he thinks it's wrong." Let's check the choices:

CHOICE A: No, he doesn't think it's true.

CHOICE B: Correct. The author argues against the assumption, making the case that the study of civil law will "enrich the...historical scholarship of the period" since it involved so many types of people and so much litigation.

CHOICE C: "Inaccurate" may be an attractor here, but this is wrong since the assumption is based on inaccurate data about pretty much everyone OTHER than the propertied male elite.

CHOICE D: Wrong because it DOES provide a good explanation of why they didn't study it — they didn't think much was going on with civil law.

CHOICE E: Wrong because it's based on something different from, not analogous to, criminal law of the period.

---

[127] **plausible** (adjective): apparently true.
Think: **applause-able**.
When the magician sawed the lady in half, it looked so **plausible** that it was **applause-able**.

20. The passage suggests that the history of criminal law in early modem England differs from the history of civil law during that same period in that the history of criminal law

    A. is of more intellectual interest to historians and their readers.
    B. has been studied more thoroughly by historians.
    C. is more relevant to general social history.
    D. involves the study of a larger proportion of the population.
    E. does not require the mastery of an extremely formal system of procedures.

EXPLANATION: Since the author questions why it has taken to study non-criminal law, we start to infer that criminal law HAS been studied. We get further evidence of this when the author says, "Yet the complexities that confront those who would study such materials are not wholly different from those recently surmounted by historians of criminal law in England during the same period."

If the historians have surmounted difficulties in studying criminal law, they must have studied it. Let's see what the choices say:

CHOICE A: Wrong; the author makes the case that studying civil law will be of interest.

CHOICE B: Correct. The author is contrasting the dearth of civil law scholarship to the apparently normal amount of criminal law studies.

CHOICE C: Wrong; again, the author is making the case that civil law will be interesting, and does not compare civil law's interest to criminal law's.

CHOICE D: Wrong; the author makes no comparison to what proportion of the population was involved in criminal law. Even though he mentions how many kinds of people were involved in civil law, this isn't a basis for us to conclude civil law involved a larger proportion of society than criminal.

CHOICE E: Wrong; the author DOES indicate that one of the impediments to the study of civil law involved mastering its complexity.

| NOTES

Powerprep Test 2

Verbal

Easy Verbal Reasoning

(0-7 correct on Section 1)

1. The epidemiologist was worried: despite _____ signs of danger, few countries or companies had taken the possibility of a pandemic seriously, and there was little interest in developing a vaccine.

   A. erroneous
   B. mounting
   C. token
   D. inconclusive
   E. residual

EXPLANATION: Use the contrast (created by "despite") between "few countries" taking the possibility of a pandemic seriously and _____ signs of danger. To create a contrast, we could predict something like "clear" signs of danger — this would also make sense that the epidemiologist is worried.

CHOICE A: Wrong; "erroneous" (incorrect) signs of danger wouldn't worry an epidemiologist and wouldn't create the contrast we need.

CHOICE B: Correct. "Mounting" (building) signs would create the worry and contrast we want.

CHOICE C: Wrong; "token" (done for appearances' sake) wouldn't create worry or contrast.

CHOICE D: Wrong for the same reasons as Choice C.

CHOICE E: Wrong; "residual" (the remainder left behind) wouldn't logically work, since it implies something without evidence: that greater signs of danger were there before. The contrast it creates isn't sharp enough.

2. The author presents the life of Zane Grey with _____ unusual in a biographer: he is not even convinced that Grey was a good writer.

   A. A zeal
   B. A deftness
   C. A detachment
   D. An eloquence
   E. An imaginativeness

EXPLANATION: The first clue we get is that the author's presentation of Grey's life is "unusual." Then we get an even better explanation, which follows the colon: that the author is unsure about Grey's writing skill. A prediction for the blank might be "ambivalence," which means "having mixed feelings."

CHOICE A: Wrong. "Zeal," or passion, wouldn't make sense if the author is unsure.

CHOICE B: Wrong. "Deftness" means skill, which has nothing to do with the clues.

CHOICE C: Correct. "Detachment" means "lack of emotion or interest," which fits well with author's uncertainty about Zane's ability.

CHOICE D: Wrong. "Eloquence" means "the ability to speak or write well" — a trait an author would probably possess, but one without support in this sentence.

CHOICE E: Wrong. "Imaginativeness," or the ability to be creative, is not supported by anything in the sentence.

3. The current (i)_____ of format in electronic scholarly publication will not last beyond the point when amateur burnout occurs and amateurs are replaced by traditional publishing companies: in an effort to reduce costs through economies of scale, publishing firms tend toward (ii) _____ in the format of their electronic publication projects.

Blank (i)	**Blank (ii)**
A. diversity	D. homogeneity
B. monotony	E. sophistication
C. refinement	F. extremes

EXPLANATION: The first thing that catches my eye is "will not last," along with "amateur burnout occurs and amateurs are replaced." Sounds pretty pessimistic! I'm expecting blank (i) to be something good: i.e., the thing that won't last. But since both "diversity" and "refinement" are good things, and I don't see anything else to help me in the sentence for blank (i), I'll work on blank (ii).

The publishing companies are trying to reduce costs through economies of scale. I don't have a great prediction, but, looking at the choices, **CHOICE D**, "homogeneity" (sameness), makes sense: keeping everything the same when producing something would save money. Looking back at blank (i) now, **CHOICE A**, "diversity" (having many different elements), works, and I can see how the sentence is contrasting "diversity" with "homogeneity," which will replace it.

Wrong answer analysis:

CHOICE B: "Monotony" doesn't connect with a need to reduce costs; in fact, monotony might help reduce them.

CHOICE C: "Refinement" might seem to connect with a need to reduce costs, but none of the choices for blank (ii) create a logical contrast with refinement.

CHOICE E: "Sophistication," if anything, would increase costs, not reduce them.

CHOICE F: "Extremes" doesn't connect with cost reduction.

4. Because we assume the (i) _____ of natural design, nature can often (ii) _____ us: as the Wright brothers noted, the birds initially misled them in almost every particular, but their Flyer eventually succeeded by being the least avian of the early flying machines.

Blank (i)	**Blank (ii)**
A. quirkiness	D. galvanize
B. preeminence	E. befriend
C. maladroitness	F. beguile

EXPLANATION: By the time I get to blank (ii), I don't know much other than that there's a cause and effect relationship between the two blanks. The colon, as always, sets up an explanation. First misled by the birds, the Wright Brothers eventually were not avian (birdlike). I don't have a great prediction here, so I'll look for words in the blanks that create cause and effect and go with "misled" and "least avian," since those words stick out. Choosing "preeminence" (superiority) **(CHOICE B)** and "beguile" (trick) **(CHOICE F)** works: those words create logical cause and effect between the two blanks. If you assume something is the best, your assumption might trick you. This notion is supported by the birds misleading the Wright brothers and the brothers eventually becoming the "least avian," showing that the birds weren't superior after all.

WRONG ANSWER ANALYSIS: "Quirkiness" can seem to work for the first blank, but doesn't go with anything for blank (ii), because none of those words results necessarily from being quirky. Same problem for "maladroitness": we'd need something that would be an inevitable result of being maladroit. For blank (ii), neither "befriend" or "galvanize" would be a natural result of preeminence, especially given that the sentence goes on to talk about the brothers being "misled."

5. If one could don magic spectacles — with lenses that make the murky depths of the ocean become transparent — and look back several centuries to an age before widespread abuse of the oceans began, even the most (i)_____ observer would quickly discover that fish were formerly much more abundant. Likewise, many now-depleted species of marine mammals would appear (ii)_____. But without such special glasses, the differences between past and present oceans are indeed hard to (iii)_____.

Blank (i)	**Blank (ii)**	**Blank (iii)**
A. casual	D. threatened	G. ignore
B. prescient	E. plentiful	H. discern
C. clearheaded	F. unfamiliar	I. dismiss

EXPLANATION: Blank (i) is supported by the phrasing, "even the most... would quickly discover," which implies that even someone inexperienced, or clueless, would see what's going on. Of the choices, "casual," (**CHOICE A**) which means "not serious," fits. Since the second sentence begins with the word "likewise," we can tell we have continuation from where the first sentence ended up. Choosing "plentiful" (**CHOICE E**) for blank (ii) creates continuation from the first sentence's "abundant." In the last sentence, there's a shift created by the word "but." Since the situation for which special glasses enabled one to see the differences between the oceans of past and present, without those glasses, the differences would be hard to see or to "discern" (**CHOICE H**.)

WRONG ANSWER ANALYSIS: Blank (i): "Prescient" might seem to go with looking back in time, but would need to be supported by foresight, not hindsight. "Clearheaded" makes no sense — if anything, something like "muddleheaded" would work better, since "even" that kind of observer can figure the situation out. Blank (ii): "Threatened" doesn't work because "likewise" indicates continuation from "abundant." Similarly, "unfamiliar" ruins the continuation that "likewise" creates. Blank (iii): "Ignore" is wrong because we need the special glasses to see the difference. Similarly, "dismiss" implied we can see the difference without the glasses (and we can't).

6. This book's strengths are the author's breadth of knowledge and the blending of ideas and findings from many disciplines, including history, the arts and the sciences. Ideas from diverse perspectives are (i)_____to provide a historical and cross-cultural understanding. But a weakness of the book is its (ii)_____: sometimes there are leaps from one domain to another that (iii)_____ the reader's ability to synthesize a coherent view of our current understanding of this subject.

Blank (i)	**Blank (ii)**	**Blank (iii)**
A. hyperbolize	D. organization	G. exaggerate
B. interwoven	E. intensity	H. oversimplify
C. reversed	F. uniformity	I. undercut

EXPLANATION: Blank (i) is supported by the meaning of the sentence it's in as a whole: "diverse perspectives" provide "cross-cultural understanding." We also get a clue from the "blending" taking place in the first sentence. **CHOICE B**, "interwoven," makes sense given these clues. The second blank is informed by the description after the colon (colons signal explanation). If there are "leaps from one domain to another," the blank (ii) should be "organization" (**CHOICE D**), which makes sense given that the blank is a weakness. Blank (iii) is informed by the "that" right before it. The blank is describing what the leaps do, and "undercut" (**CHOICE I**) makes sense, since leaps would make it harder to "synthesize a coherent view."

WRONG ANSWER ANALYSIS: Blank (i): "Hyperbolize" and "reversed" lack support, even if they might seem to fit the context. Blank (ii): "Intensity" and "uniformity" are unsupported: after Blank (ii), we just hear about the book's leaps. Blank (iii): "Exaggerate" wouldn't make sense — the reader's ability to understand is undermined — and "oversimplify" wouldn't be a sensical way to describe an ability — that would be a weird use of English.

Questions 7 through 9 are based on the following passage.

In the 1970s, Danish researchers observed surprisingly low frequencies of heart disease among Greenland's indigenous populations that typically ate fatty fish, seals, and whales. The researchers attributed the protective effect to the foods' content of omega-3 fatty acids. Many studies of omega-3s have been conducted since, but their findings can be interpreted differently. In 2006 the Institute of Medicine (IOM) issued a review of studies on seafood consumption, concluding that eating seafood reduces the risk of heart disease but judging the studies too inconsistent to decide if omega-3 fats were responsible. In contrast, investigators from Harvard published a very positive report, stating that even modest consumption of fish omega-3s would substantially reduce coronary deaths and total mortality. Differences in interpretation explain how scientists examining the same studies could arrive at such different conclusions. The two groups, for example, had conflicting views of a study published in the British Medical Journal that found no overall effect of omega-3s on heart disease risk or mortality, although a subset of the data displayed a 14 percent reduction in total mortality that did not reach statistical significance. The IOM team interpreted the "nonsignificant" result as evidence of the need for caution, whereas the Harvard group saw the data as consistent with studies reporting the benefits of omega-3s.

7. It can be inferred that the author mentions a study published in the British Medical Journal primarily in order to

   A. show how ambiguity in research reports may lead to unfounded recommendations.
   B. suggest that certain data dismissed as "nonsignificant" were in fact quite important.
   C. identify an error that led to discrepancies in researchers' conclusions
   D. illustrate a difference in matters of interpretation.
   E. call into question the conclusions of two groups of researchers.

EXPLANATION: The phrase "in order to" in the question tell you that you have to determine why the author brought up the British Medical Journal study. To do that, look at what the author what doing before she brought it up: "Differences in interpretation explain how scientists examining the same studies could arrive at such different conclusions." Therefore, you could predict that the author is mentioning the study to illustrate the claim before it; the author uses the study to show differences of interpretation between different researchers. **CHOICE D** is correct.

CHOICE A: Wrong. There is no mention of ambiguity nor unfounded recommendations.

CHOICE B: Wrong. The passage reports on the Harvard group's belief the data were important but there is no evidence of the author's support for this belief.

CHOICE C: Wrong. No error is mentioned.

CHOICE E: Wrong. The author merely presents the information regarding the two group without challenging it.

8. According to the passage, the report issued by the IOM and the explanation offered by the Danish researchers differed on the issue of whether

   A. the consumption of omega-3 fatty acids was responsible for observed reductions in the risk of heart disease.
   B. the consumption of seafood has an effect on a person's likelihood of developing heart disease.
   C. seafood is a significant enough source of omega-3 fatty acids for its consumption to affect human health.
   D. factors other than diet are primarily responsible for determining a person's likelihood of developing heart disease.
   E. the frequency of heart disease among Greenland's indigenous populations could be related to diet.

EXPLANATION: According to the passage, the Danish researchers attributed lowered rates of heart disease to consumption of omega-3s, while the EOM study only concluded that lowered rates were connected to seafood consumption, not necessarily to omega-3s. We can anticipate that the issue on which they differ is whether seafood or omega-3s was responsible. Therefore, **CHOICE A** is correct.

CHOICE B: Wrong. Both groups agree about seafood's effect in reducing risk.

CHOICE C: Wrong. This is off base; the groups don't disagree on whether seafood contains enough omega-3s and, furthermore, the EOM study didn't conclude that omega-3s are responsible at all.

CHOICE D: Wrong. This topic isn't mentioned.

CHOICE E: Wrong. They would agree on this point since they agree that seafood lowers risk.

9. Which of the following can be inferred from the passage about the "investigators from Harvard"?

   A. Their conclusions were based on data that differed significantly from the data reviewed by the IOM.
   B. Their conclusions about omega-3 fats were more tentative than those reached by the authors of the study published in the British Medical Journal.
   C. They would likely agree with the explanation offered by the Danish researchers for why Greenland's indigenous populations displayed low frequencies of heart disease.
   D. They would likely consider the report issued by the IOM to be incorrect about the value of seafood consumption but correct about the value of omega-3 fats.
   E. They would likely argue that more research is needed before researchers can determine whether the consumption of omega-3 fats has a beneficial effect on human health.

EXPLANATION: We aren't told much about the Harvard investigators, other than they believe omega-3s lower the risk of heart disease, so we can anticipate something the same as or related to that fact. **CHOICE C** is correct, since the Danish researchers also attributed the reduced risk to omega-3s.

CHOICE A: Wrong. There is no evidence the data differed; in fact, they both reviewed the British Medical Journal study.

CHOICE B: Wrong. This is the opposite of what the passage says.

CHOICE D: Wrong. We get no evidence of whether the Harvard group thinks seafood is linked, just omega-3s.

CHOICE E: Wrong. Their minds are already made up about omega-3s!

Questions 10 and 11 are based on the following passage.

The disappearance of Steller's sea cow from the Bering and Copper islands by 1768 has long been blamed on intensive hunting. But its disappearance took only 28 years from the time Steller first described the species, a remarkably short time for hunting alone to depopulate the islands, especially given the large populations initially reported. However, by 1750, hunters had also targeted nearby sea otter populations. Fewer otters would have allowed sea urchin populations on which the otters preyed to expand and the urchins' grazing pressure on kelp forests to increase. Sea cows were totally dependent on kelp for food, and within a decade of the onset of otter hunting Steller noted that the islands' sea cows appeared malnourished.

10. Which of the following can be inferred from the passage about kelp forests in the Bering and Copper islands between 1750 and 1768?

    A. They were reduced significantly.
    B. They disappeared entirely from the region.
    C. They were the primary food source for sea otters.
    D. They were harvested in record numbers by humans.
    E. They increased pressure on sea urchin populations.

EXPLANATION: This is a good time to make a chain of events diagram. Hunters killed otters. Otters ate sea urchins. Sea urchins didn't get eaten by otters, and ate all the kelp. Sea cows eat kelp, so they starved. **CHOICE A** is correct since the kelp was eaten by the sea urchins.

CHOICE B: Wrong. There's no evidence they were completely wiped out.

CHOICE C: Wrong. Sea otters eat sea urchins — no mention they eat kelp.

CHOICE D: Wrong. No evidence humans harvested the kelp.

CHOICE E: Wrong. It's the other way around — sea urchins put pressure on the kelp.

11. According to the passage, it is likely that during the mid-1700s, sea urchin populations near the Bering and Copper islands

    A. were diminished by sea cow predation
    B. experienced substantial increases
    C. migrated to waters with more plentiful food supplies
    D. were reduced by the pressures of hunting
    E. appeared to be malnourished

EXPLANATION: Looking back at our chain of events from the explanation to #10, the sea urchins thrived, so **CHOICE B** is correct.

CHOICE A: Wrong. No evidence that sea cows eat sea urchins.

CHOICE C: Wrong. No evidence they migrated.

CHOICE D: Wrong. The opposite of this is true.

CHOICE E: Wrong. The opposite of this is true.

Select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.

12. Alkan steadfastly[94] refused to _____ her responsibilities as an author: for her an author had to be fearless and committed, and she was always both.

    A. undertake
    B. shirk[128]
    C. disclose
    D. reveal
    E. rationalize
    F. neglect

EXPLANATION: The part of the sentence after the colon explains the part before. If Alkan was fearless and committed, it would make sense that she would stick to her commitments. I.e., she would refuse to "shirk" (**CHOICE B**) or "neglect" them (**CHOICE F**).

CHOICE A: Wrong. She *would* "undertake" them, since she's committed.

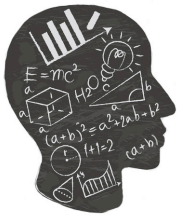
CHOICE C: Wrong. "Disclosing" or not disclosing is irrelevant.

CHOICE D: Wrong. "Reveal" or not revealing is irrelevant.

CHOICE E: Wrong. "Rationalizing" has nothing to do with sticking to commitments.

---

[128] **shirk** (verb): to avoid a duty.
Think: **shark**. If the beach lifeguard **shirks** his duties, then you might want to keep a look out for **sharks**.



13. If emissions of heat-trapping gases continue to accumulate in the atmosphere at the current rate, Earth could experience global transformations, and while some of these changes might be _____, many could be downright disruptive.

    A. catastrophic
    B. calamitous[129]
    C. intolerable
    D. irremediable
    E. modest
    F. unremarkable

EXPLANATION: There's a clear contrast set up by the word "while," and we know where it's ending up: that many of the changes could be disruptive. A good anticipation would be something like "mild" for the blank — to create contrast with "disruptive." **CHOICES E** and **F** are correct, since both create that contrast. The other choices are incorrect since they all create continuity, not contrast.

14. It may be that most of this film footage was shown somewhere, but the documentary is designed to make audiences feel that this footage has never been seen, or that, having been seen, it was deliberately _____.

    A. censored
    B. imitated
    C. suppressed
    D. underscored[130]
    E. counterfeited
    F. misrepresented

EXPLANATION: There is a contrast set up between the first part of the sentence — where we learn that the footage was shown — and the second part, where we learn the documentary is designed to make it seem undiscovered. The word "or" helps indicate continuation, so picking words for the blank that go along with the second part would make sense. Both **CHOICE A** and **CHOICE C** create continuation — if the footage was "censored," or "suppressed," then the second part of the sentence would contrast well with the first part (which hints that the footage was shown).

CHOICE B: Wrong. There's nothing suggesting imitation.

CHOICE D: Wrong. "Underscored" would create continuation from "shown."

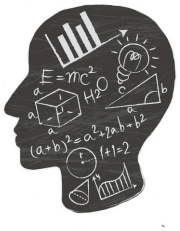
CHOICE E: Wrong. "Counterfeited" is not supported in any way.

CHOICE F: Wrong. Neither is "misrepresented." No evidence.

---

129 **calamitous** (adjective): related to a terrible event.
Think: **calamari vomit**.
It's **calamitous** when you eat undercooked **calamari**, become **vomitous**, and puke on your date.

130 **underscore** (verb): to highlight.
Think: **to score = to write**.
To score a composition is **to write** a composition; to **underscore** something on a piece of paper, you write under it (underline).



15. Philby secretly loathed the host of the party that he was attending, but it seemed _____ to say so publicly.

A. recondite[131]
B. tactless
C. clever
D. malign[132]
E. deft
F. impolitic

EXPLANATION: We get that Philby loathes the host, then the word "but," so we can reason that the blank should create contrast between his loathing and the second part of the sentence. **CHOICES B** and **F** are correct; both create the meaning that it would be insensitive to reveal his hatred (which creates the desired contrast).

CHOICE A: Wrong. There's nothing suggesting "recondite," or obscure.

CHOICE C: Wrong — "clever" would create continuation instead of contrast.

CHOICE D: Wrong. There's no evidence for evil.

CHOICE E: Wrong — "deft" would create continuation, too.

---

131 **recondite** (adjective): not easily understood.
Think: **reckoned it**.
I couldn't understand my professor's **recondite** lecture, but I **reckoned it** had something to do with the fourth dimension.

132 **malign** (verb): to speak evil of.
Think: **malignant**.
The evil witch not only **maligned** her enemies but also cast spells designed to give them **malignant** tumors.

Question 16 is based on the following passage.

Romley: The Laurence Papyrus, a manuscript on the circulation of blood, was made about 1700 B.C. However, the text is in a language that had not been in common use since 2700 B.C. So the Laurence Papyrus must be a copy of an older manuscript, and the understanding of circulation must date to at least 2700 B.C.

Vargas: Not necessarily. In 1628 William Harvey published his investigations of the circulation of blood in a by-then-dead language, Latin.

16. Vargas responds to Romley's argument by doing which of the following?

A. Arguing that Romley's argument applies only to a special case.
B. Contending that one of the dates introduced as evidence to support Romley's conclusion is wrong.
C. Contending that Romley's conclusion is inconsistent with generally accepted views of the history of medicine.
D. Proposing a counterexample to a generalization implicit in the formulation of Romley's argument.
E. Proposing a minor qualification of Romley's conclusion that would serve to shield it from a potential objection.

EXPLANATION: It seems as though Vargas disagrees with Romley and then supports his disagreement with evidence. **CHOICE D** is correct, since Vargas's mention of Harvey serves to provide an example another time a scholar published something in a unused language. Vargas's implication is that in neither case is it certain that using an unused language means that the scholar is merely copying something known in the era that dead language was used. Therefore, he is arguing against Romley's implicit generalization that if something was published in a certain language it was understood at the time that language was used.

CHOICE A: Wrong. Vargas is calling Romley's argument into question, not arguing it only applies to a certain case.

CHOICE B: Wrong. This is tricky. We can infer Vargas is disagreeing with Romley's conclusion about the understanding of circulation dating to 2700 B.C., but that's not what Vargas is doing by introducing a counterexample (see explanation for the correct answer).

CHOICE C: Wrong. Vargas doesn't bring up the history of medicine at all.

CHOICE E: Wrong. Vargas is more refuting Romley's conclusion than qualifying it and certain isn't defending it.

Questions 17 and 18 are based on the following passage.

> In the late nineteenth century, numerous African American women's literary clubs met regularly to discuss literary works. Although clubwomen often called their literary meetings "classes," their **practices** were radically different from those found in turn-of-the-century academic settings. For example, the culture of reading cultivated by these clubs de-emphasized one authoritative perspective on literary texts; instead, it encouraged women to determine for themselves the importance of the texts they read. For instance, a set of questions discussed by members reading Scott's Ivanhoe was sufficiently open-ended to suggest that there were no "right" answers. Rather, the questions were designed to emphasize the importance of careful reading, of individual interpretation, and of "being able to form and hold one's own opinion."

17. The passage suggests that members of the women's reading clubs would agree with which of the following about the reading of literary texts?

    A. The clubs should be reading different literary texts from those being read in academic settings.
    B. While the clubs should focus primarily on the reading of literary texts, they should consider nonliterary texts as well.
    C. The reading practices that prevailed at the clubs are more suitable for some literary texts than for others.
    D. Equally careful readings of a literary text can result in divergent interpretations of that text.
    E. The lack of any authoritative perspective on a given literary text makes the reading of that text more difficult.

EXPLANATION: From reading the passage, we can anticipate that the clubwomen believed that there was no one right answer regarding the interpretation of a text. **CHOICE D** is correct, since it affirms the sentiment in the passage that multiple interpretations are possible (and valid).

CHOICE A: Wrong. There is no mention of the women believing they should read different texts.

CHOICE B: Wrong. There's no mention of considering scientific texts.

CHOICE C: Wrong. There's no mention of whether their reading practices work better for certain texts.

CHOICE E: Wrong. There's no mention of whether multiple perspectives affect the difficulty of reading a text.

18. In the context in which it appears, "practices" most nearly means

    A. rehearsals
    B. regulations
    C. attempts
    D. procedures
    E. preparations

EXPLANATION: We can find some helpful context in the sentence after the word "practices" appears — a description of the way the clubwomen work with texts is provided. We can therefore infer that "practices" means something like the "ways" the women work with the texts. **CHOICE D** is correct since "procedures" means the ways things are done.

CHOICE A: They're not practicing or rehearsing.

CHOICE B: The practices are just things they do — no mention of rules.

CHOICE C: There's no support for trying to do something here.

CHOICE E: The meetings are where they actually do things, not where they prepare to do things somewhere else.

Questions 19 and 20 are based on the following passage.

> Recent appraisals of developing media technologies, such as the Internet, have emphasized their potential to fragment audiences. This fragmentation is presumed to result because the technologies allow and even encourage people to narrow the focus of their media consumption to pursue their individualized news interests and needs. As Katz has argued, such a narrowed focus is problematic for the functioning of modem democracies. Fragmented audiences are unlikely to consume a common diet of news, potentially leaving them underinformed about central issues facing a nation. Individually tailored media use, Katz writes, "seems to be fast displacing national comings-together, and pleasure seems to be pushing public affairs ever more out of sight." Such an environment threatens the very foundation of political systems based on assumptions of citizen awareness and involvement.

19. It can be inferred from the passage that Katz would be LEAST likely to agree with which of the following statements?

    A. When audience fragmentation occurs, individuals' news interests will still tend to include the most important issues facing the nation.
    B. The process leading to media audience fragmentation has unhealthy implications for the functioning of a democracy.
    C. The ability of people to select sources of news that more closely suit their own interests is facilitating audience fragmentation.
    D. There are features of new and emerging media technologies that encourage audience fragmentation.
    E. There will probably be news of major importance about which some media users will remain inadequately informed under conditions of audience fragmentation.

EXPLANATION: We can anticipate the answer by focusing on what Katz believes — namely, that fragmented audiences are "problematic" for democracies. **CHOICE A** is correct since it's the opposite of what Katz suggests; he implies that audiences will not tend to still be interested in ~~important issues. The other choices are all things Katz *does* agree with.~~

20. Which of the following most accurately presents the passage's treatment of Katz's position?

    A. The position is rejected as relying too heavily on unsubstantiated assumptions.
    B. The position is considered sympathetically but ultimately rejected as too sweeping.
    C. The position is put forward as a compelling hypothesis that stands in need of testing.
    D. The position is adopted in modified form after being adjusted to meet objections.
    E. The position is accepted without reservation and cited as authoritative support.

EXPLANATION: Unusually — for a GRE passage — the author agrees with the position he's presenting. **CHOICE E** is correct; the author is accepting Katz's position and using it to support his argument.

CHOICE A: Wrong. The author agrees with Katz.

CHOICE B: Wrong. The author at no point rejects Katz's position.

CHOICE C: Wrong. There is no mention that Katz's position is a hypothesis or in need of testing.

CHOICE D: Wrong. There is no adjustment of Katz's position; it's merely presented.

| NOTES

Powerprep Test 2

Verbal

Medium Verbal Reasoning

(8-14 correct on Section 1)

1. The book's seemingly casually written, conversational style masks _____ structure.

   A. a loosely organized
   B. a somewhat rambling
   C. an overly diffuse
   D. a shrewdly[133] crafted
   E. an unconventionally informal

EXPLANATION: By "seemingly casual," we know that in fact the book has some quality that either contrasts "casual" or is surprising given it's casual. **CHOICE D**, "shrewdly crafted," works because being cleverly constructed would be surprisingly given the book's seemingly casual style. The word "masks" also helps influence the blank, since it makes more sense to mask something contrary to the book's overt nature.

CHOICE A: Wrong; "loosely organized" wouldn't be surprising if it's casually written.

CHOICE B: Wrong; "somewhat rambling" would be unsurprising, too.

CHOICE C: Wrong; "overly diffuse" is unsupported and would make more sense given it's casually written.

CHOICE E: Wrong; "informal" wouldn't be surprising, either.

2. This filmmaker is not outspoken on political matters: her films are known for their aesthetic qualities rather than for their _____ ones.

   A. polemical[134]
   B. cinematic
   C. narrative
   D. commercial
   E. dramatic

EXPLANATION: The part of the sentence after the colon explains the part before, so we need to create a meaning that explains that the filmmaker isn't outspoken about politics. "Rather than" also tells us the blank contrasts or is quite different from "aesthetic." **CHOICE A**, "polemical," is correct because it means to be strongly critical and usually is used in the context of politics. Choices B, C, and E are wrong because they don't create any contrast with aesthetic, nor do they involve not being political. Choice D is wrong because although it contrasts with aesthetic, it doesn't reference anything about not being political.

---

133 **shrewd** (adjective): clever.
Think: **sued**.
The **shrewd** attorney **sued** as many people as she could; she knew her superior knowledge of the law would make her win.

134 **polemic** (noun): a harsh attack against a principle.
Think: **politician at a mic**.
Put a **politician at a mic**, and you'll soon hear **polemic** as he attacks his opponent's policies.

3. Though somewhat less (i) _____than previous chapters and suffering from a minor rash[135] of academic jargon, the final chapter of the book is nonetheless (ii) _____ laypeople.

Blank (i)	**Blank (ii)**
A. arcane[136]	D. largely ignored by
B. coherent	E. accessible to
C. subjective	F. impenetrable to

EXPLANATION: A good place to start is noticing the book has a "minor rash of jargon." The words "though" and "nonetheless" create contrast between that jargon and the final clause, so we need something for the second blank that means the book is easy to understand. **CHOICE E**, "Accessible to," is correct, since it contrasts with the jargon. Once we choose blank (i), we see that blank (ii) also contrasts with blank (i). **CHOICE B**, "Coherent," is correct — it both goes with "jargon" (because of the word "and") and contrasts with "accessible to."

WRONG ANSWER ANALYSIS: Blank (i): "Arcane" doesn't work: the word "and" means that the first part of the sentence has to mean something similar to "suffering from... jargon" — less arcane would contrast with that. "Subjective" would also contrast with "...jargon." Blank (ii): "Largely ignored by" doesn't work because of the word "nonetheless": we need a contrast or surprise, and ignoring the book would be unsurprising given the first part. "Impenetrable" is wrong, again, because "nonetheless" creates contrast, and if the book were impenetrable, that would be unsurprising.

4. Although he has long had a reputation for (i) _____, his behavior toward his coworkers has always been (ii) _____, suggesting he may not be as insolent as people generally think.

Blank (i)	**Blank (ii)**
A. inscrutability	D. brazen[137]
B. venality	E. courteous
C. impudence	F. predictable

---

135 **rash** (adjective): hasty; incautious.
Think: **rash** (noun).
If you make the **rash** (adjective) decision to have unprotected sex with that NBA player, you might get a **rash** (noun).

136 **arcane** (adjective): mysterious; known only to a few.
Think: **Ark of the Covenant**.
Indiana Jones understood the **arcane Ark of the Covenant**; the Nazis did not, which is why they perished.

137 **brazen** (adjective): shamelessly bold.
Think: **blazin'**.
Blazin' up a joint during class is certainly **brazen**, but it'll get you expelled 100 out of 100 times.

EXPLANATION: Go to where you've got info: he isn't all that insolent, which must be explaining the second blank, since that info follows blank (ii). **CHOICE E**, "Courteous," makes sense if he isn't insolent. The word "although" creates contrast, so he must have a reputation for "impudence" (**CHOICE C**).

WRONG ANSWER ANALYSIS: Blank (i): Neither "inscrutability" or "venality" goes with "insolent." Blank (ii): Neither "brazen" or "predictable" has any necessary connection to "insolent," either.

5. There is nothing that (i) _____ scientists more than having an old problem in their field solved by someone from outside. If you doubt this (ii) _____ , just think about the (iii) _____ reaction of paleontologists to the hypothesis of Luis Alvarez — a physicist — and Walter Alvarez — a geologist — that the extinction of the dinosaurs was caused by the impact of a large meteor on the surface of the planet.

Blank (i)	Blank (ii)	Blank (iii)
A. amazes	D. exposition	G. contemptuous
B. pleases	E. objurgation	H. indifferent
C. nettles[138]	F. observation	I. insincere

EXPLANATION: You might surmise that a scientist *wouldn't* like it if someone outside his field solved an old problem, but we can't really prove it yet, so we have to use some trial and error. Blank (i) and blank (ii) should go together, since the second sentence serves to give us an example if we doubt the first sentence. If we pick **CHOICE C**, "nettles," for blank (i) and **CHOICE G**, "contemptuous," for blank (iii), we have a logical connection between sentences 1 and 2. The only word that makes sense for blank (ii) is **CHOICE F**, "observation" — the first sentence isn't an "exposition" and it's certainly not an "objurgation."

[138] **nettle** (verb): to irritate.
Think: **needle**.
Poking someone with a **needle** is a quick way to **nettle** him.

6. Historical research makes two somewhat antithetical truths that sounded (i)_____ come to seem profound: knowledge of the past comes entirely from written documents, giving written words great (ii)_____, and the more material you uncover, the more (iii)_____ your subject becomes.

Blank (i)	**Blank (ii)**	**Blank (iii)**
A. deep	D. consequence	G. elusive
B. portentous	E. antiquity	H. contemporary
C. banal[139]	F. simultaneity	I. circumstantial

EXPLANATION: We need to pick words for blanks (ii) and (iii) that create antithetical, or contradictory, truths. If something (blank i) later comes to seem profound, a contrast is implied. So, the first clause is logical if "banal" (**CHOICE C**) contrasts with "profound." The colon sets up an explanation — if knowledge of the past comes entirely from written documents, it makes sense that written words have great **CHOICE D**, "consequence." To create a contradiction to that, choose **CHOICE G**, "elusive," for blank (iii): words are important, but the more of them you find, the more elusive the truth is creates two antithetical maxims.

WRONG ANSWER ANALYSIS: Blank (i): "Deep" means the same thing as "profound," and the first sentence creates contrast between blank (i) and "profound." "Portentous" doesn't create contrast, either. Blank (ii): "Coming entirely from written documents" doesn't lead to "antiquity," though you might associate "antiquity" with the past. "Simultaneity" makes no sense when describing written words. Blank (iii): "Contemporary" doesn't create the antithetical-ness we need with "the more material you uncover," and "circumstantial" doesn't really work to describe a subject — if anything, it would create continuation, since one definition of circumstantial is "having all the details."

[139] **banal** (adjective): unoriginal.
Think: **ban all**.
The **banal** librarian thought there were enough books already and wanted to **ban all** the new ones.

Questions 7 and 8 are based on the following passage.

While chocolate was highly esteemed in Mesoamerica, where it originated, its adoption in Europe was initially slow. There is a common belief that Europeans needed to "transform" chocolate to make it appetizing. However, while Spaniards did put sugar, which was unknown to indigenous[140] Americans, into chocolate beverages, this additive was not completely innovative. Mesoamericans were already sweetening chocolate with honey, and the step from honey to sugar — increasingly more available than honey because of expanding sugar plantations in the Americas — is a small one. Likewise, although Spaniards adjusted Mesoamerican recipes by using European spices, the spices chosen suggest an attempt to replicate harder-to-find native flowers. There is no indication the Spaniards deliberately tried to change the original flavor of chocolate.

7. The author of the passage refers to the use of honey primarily to

A. identify the origins of an additive previously untried by Europeans.
B. present an example of a product that was unknown to Europeans.
C. correct the misapprehension that Mesoamericans used a sweetener that was not available in Europe.
D. provide an example of an ingredient that was in the process of being displaced by a substitute.
E. explain why the Spanish use of sugar in chocolate was not a sign of a need to transform chocolate.

EXPLANATION: If you look at the sentence before the one in which honey is mentioned, the author is making a claim that "this additive was not completely innovative." This claim is a rebuttal of the belief in the previous sentence, that "Europeans needed to transform chocolate." The author mentions honey to support her rebuttal. **CHOICE E** is correct, since the author's claim and support serve to shoot down the belief mentioned in the second sentence. In other words, the Europeans' use of sugar wasn't a sign that transformation was needed since the Mesoamericans were already using honey as a sweetener.

CHOICE A: Wrong — the origins of honey aren't mentioned, nor do we know if Europeans tried honey.

CHOICE B: Wrong — no evidence that honey was unknown to Europeans.

CHOICE C: Wrong — no evidence that honey wasn't available in Europe.

CHOICE D: Wrong — although the passage says sugar could replace honey, it doesn't mention if honey was being displaced by sugar. And that's not the point (see right answer explanation).

---

[140] **indigenous** (adjective): native to an area.
Think: **Indian dig in U.S.**
The archaeologist found arrowheads during her **Indian dig in the U.S.** and concluded that Native Americans were **indigenous** to the area.

8. Select the sentence that presents a misconception that the passage challenges.

EXPLANATION: "There is a common belief that Europeans needed to "transform" chocolate to make it appetizing." The author proceeds to rebut this claim and support this rebuttal (for more information, see the explanation to Question 7).

Questions 9 to 11 are based on the following passage.

> The decrease in responsiveness that follows continuous stimulation (adaptation) is common to all sensory systems, including olfaction. With continued exposure to chronically present ambient odors, individuals' perception of odor intensity is greatly reduced. Moreover, these perceptual changes can be profound and durable. It is commonly reported that following extended absences from the odorous environment, reexposure may still fail to elicit perception at the original intensity. Most research on olfactory adaptation examines relatively transient changes in stimulus detection or perceived intensity—rarely exceeding several hours and often less—but because olfactory adaptation can be produced with relatively short exposures, these durations are sufficient for investigating many parameters of the phenomenon. However, exposures to odors in natural environments often occur over far longer periods, and the resulting adaptations may differ qualitatively from short-term olfactory adaptation. For example, studies show that even brief periods of odorant stimulation produce transient reductions in receptors in the olfactory epithelium, a process termed "receptor fatigue." Prolonged odor stimulation, however, could produce more long-lasting reductions in response, possibly involving structures higher in the central nervous system pathway.

9. According to the passage, the phenomenon of olfactory adaptation may cause individuals who are re-exposed to an odorous environment after an extended absence to

   A. experience a heightened perception of the odor.
   B. perceive the odor as being less intense than it was upon first exposure.
   C. return to their original level of perception of the odor.
   D. exhibit a decreased tolerance for the odorous environment.
   E. experience the phenomenon of adaptation in other sensory systems.

EXPLANATION: The passage says that "following extended absences...re-exposure may still fail to elicit perception." I.e., you still don't smell the smell even after a long time has passed. **CHOICE B** is therefore correct.

CHOICE A: Wrong — the opposite is true.
CHOICE C: Wrong — it says you don't reach the original intensity.
CHOICE D: Wrong — no information is provided about tolerance for the environment.
CHOICE E: Wrong — although the passage says all sensory systems adapt, it doesn't connect this to returning to an odorous environment after a long absence.

10. The passage asserts which of the following about the exposures involved in the "research on olfactory adaptation"?

    A. The exposures are of long enough duration for researchers to investigate many aspects of olfactory adaptation.
    B. The exposures have rarely consisted of re-exposures following extended absences from the odorous environment.
    C. The exposures are intended to reproduce the relatively transient olfactory changes typical of exposures to odors in natural environments.
    D. Those exposures of relatively short duration are often insufficient to produce the phenomenon of receptor fatigue in study subjects.
    E. Those exposures lasting several hours produce reductions in receptors in the olfactory epithelium that are similar to the reductions caused by prolonged odor stimulation.

EXPLANATION: The passage says most research has examined short (transient) exposures, and explains by saying short studies are good enough to examine many aspects: "these durations are sufficient for investigating many parameters of the phenomenon," which is exactly what **CHOICE A** is saying.

CHOICE B: Wrong — although you might infer that the studies didn't include re-exposures after long absences, this is never mentioned so you can't prove it.
CHOICE C: Wrong — reproducing changes in natural environments isn't mentioned.
CHOICE D: Wrong — the opposite is mentioned later in the passage.
CHOICE E: Wrong — in fact, the author speculates that long-term absences will produce different changes than short term.

11. The author of the passage discusses "receptor fatigue" primarily in order to

    A. explain the physiological[141] process through which long-lasting reductions in response are thought to be produced
    B. provide an example of a process that subjects would probably not experience during a prolonged period of odorant stimulation
    C. help illustrate how the information gathered from most olfactory research may not be sufficient to describe the effects of extended exposures to odors
    D. show how studies of short-term olfactory adaptation have only accounted for the reductions in response that follow relatively brief absences from an odorous environment
    E. qualify a statement about the severity and duration of the perceptual changes caused by exposure to chronically present ambient odors

---

EXPLANATION: If you start reading after the "However" in the third-to-last sentence, the author is making a claim (that long term and short term absences may produce different effects). Like most authors, the author then proceeds to support the claim. "Receptor fatigue" is brought up to establish a fact about short-term studies so that the author can speculate how long-term absences may be different. **CHOICE C** is therefore right.

CHOICE A: Wrong — if anything, it explains short-term physiology.

CHOICE B: Wrong — contradicted by the final sentence.

CHOICE D: Wrong — tricky — most of this choice IS supported by the passage, but it's a bad answer to the question being asked. You may also have to think about what the mention of receptor fatigue does (see correct answer) to understand what it *doesn't* do.

CHOICE E: Wrong — we don't hear anything about chronically present ambient odors.

---

[141] **physiological** (adjective): related to the body.
Think: **physical**.
I knew I wasn't just imagining I was ill because my **physiological** symptom, a fever of 103, was **physical**.

Select the two answer choices that, when used to complete the sentence, fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.

12. The slower-learning monkeys searched _____ but unintelligently: although they worked closely together, they checked only the most obvious hiding places.

    A. competitively
    B. impulsively
    C. cooperatively
    D. deviously
    E. craftily
    F. harmoniously

EXPLANATION: "Unintelligently" is preceded by a shifting word (but), so what comes before the shift needs to contrast with "unintelligently." We also have a clue in "worked closely together" that turns out to be the best way to justify the right answers (**CHOICES C** and **F**).

CHOICE A: Wrong — no support for competitiveness.

CHOICE B: Wrong — you might assume the monkeys were impulsive if they only checked obvious places, but there's no synonym in the choices to "impulsive," nor do we have necessary support for it.

CHOICE D: Wrong — no support.

CHOICE E: Wrong — no support.

13. The report's most significant weakness is its assumption that the phenomenon under study is _____, when in reality it is limited to a specific geographic area.

    A. unusual
    B. exceptional
    C. ubiquitous[142]
    D. absolute
    E. universal
    F. restricted

EXPLANATION: There's a nice contrast here between "limited to a specific area" and the first part of the sentence with the blank. It's created by "in reality" (which implies the assumption is different from reality). **CHOICES C** and **E** are correct since they mean "everywhere."

CHOICE A: Wrong — doesn't create a contrast with limited.

CHOICE B: Wrong — doesn't create contrast.

CHOICE D: Wrong — close, but it's not a good opposite of "limited" and it doesn't have a synonym.

CHOICE F: Wrong — this would create continuity, not contrast.

[142] **ubiquitous** (adjective): existing everywhere.
Think: **you big Quidditch**.
You big Quidditch fans have made the Harry Potter sport **ubiquitous** on college campuses.

14. By about eight, children's phonetic capacities are fully developed but still _____; thus children at that age can learn to speak a new language with a native speaker's accent.

A. plastic
B. vestigial
C. inarticulate
D. unformed
E. nascent
F. malleable[143]

EXPLANATION: There's a cause and effect set up by the word "thus"; the part of the sentence before the blank is the cause, and "can learn... a new language" is the effect. Both **CHOICES A** and **F** create a logical cause to the effect of being able to learn despite being fully formed.

CHOICE B: Wrong — "vestigial" doesn't explain being able to learn.

CHOICE C: Wrong — being "inarticulate" has nothing to do with learning.

CHOICE D: Wrong — "unformed" contradicts being fully developed and makes no sense.

CHOICE E: Wrong — "nascent[144]" means unformed and is wrong for the same reason as Choice D.

15. Each member of the journalistic pair served as _____the other: each refrained from publishing a given piece if the other doubted that it was ready to be printed.

A. a check on
B. an advocate for
C. an impediment to
D. a brake on
E. an apologist for
F. an intermediary for

EXPLANATION: As always, an explanation follows the colon: that one of the pair wouldn't publish if the other didn't think the piece was good enough. I.e., each was acting as a check or brake (**CHOICES A** and **D**) on the other – kind of like "checks and balances" in government.

CHOICE B: Wrong — doesn't fit the clue well and doesn't have a synonym.

CHOICE C: Wrong — they're helping each other, not impeding.

CHOICE E: Wrong — no evidence for apology.

CHOICE F: Wrong — no evidence for being a go-between for each other.

---

143 **malleable** (adjective): able to be shaped.
Think: **mallet-able**.
24-karat gold is so **malleable** that you can dent it with a wooden hammer – it's "**mallet-able**."

144 **nascent** (adjective): coming into existence; new.
Think: **new car scent**. I jumped into the **nascent** BMW while it was still on the assembly line and breathed in the best **new car scent** I've ever smelled.

Question 16 is based on this passage.

Newspaper Editorial: Last year, Mayor Stephens established a special law-enforcement task force with the avowed mission of eradicating[145] corruption in city government. The mayor's handpicked task force has now begun prosecuting a dozen city officials. Since all of these officials were appointed by Mayor Bixby, Mayor Stephens' predecessor and longtime political foe, it is clear that those being prosecuted have been targeted because of their political affiliations[146].

16. Which of the following, if true, most weakens the editorial's argument?

A. Complaints of official corruption in city government have decreased since the anticorruption task force began operating.
B. Former mayor Bixby did not publicly oppose Mayor Stephens' establishment of the anticorruption task force.
C. Almost all of the officials who have served in city government for any length of time are appointees of Mayor Bixby.
D. All of the members of the anticorruption task force had other jobs in city government before the task force was formed.
E. During the last mayoral election campaign, then-Mayor Bixby hotly disputed the current mayor's claim that there was widespread corruption in city government.

EXPLANATION: First, isolate the argument; it's the last sentence — they're prosecuting them for political reasons since Stephens is Bixby's foe. Now, look at the choices to see if you can find one that provides an alternate explanation. **CHOICE C** is correct — if almost all the officials are Bixby appointees, then it's really hard to prove Bixby appointees are being targeted. If only some were Bixby appointees and those people were the only ones being prosecuted, that would be an easier argument to make.

CHOICE A: Wrong — this has nothing to do with political affiliations.

CHOICE B: Wrong — who cares is Bixby didn't publicly opposed — his appointees still could have been targeted.

CHOICE D: Wrong — this is irrelevant.

CHOICE E: Wrong — Bixby's actions in the past wouldn't necessarily affect whether Stephens targeted his appointees.

---

145 **eradicate** (verb): to wipe out.
Think: **radiate**. You can **radiate** food to **eradicate** the bacteria in it.

146 **affiliated** (adjective): related to, intertwined.
Think: **Philly I ate**. When I went to **Philly I ate** a cheesesteak, because cheesesteaks are **affiliated** with Philadelphia.

Questions 17 and 18 are based on this passage.

> Among academics involved in the study of Northern Renaissance prints (reproducible graphic artworks), an orthodox position can be said to have emerged. This position regards Renaissance prints as passive representations of their time—documents that reliably record contemporary events, opinions, and beliefs—and therefore as an important means of accessing the popular contemporary consciousness. In contrast, pioneering studies such as those by Scribner and Moxey take a strikingly different approach, according to which Northern Renaissance prints were purposeful, active, and important shaping forces in the communities that produced them. Scribner, for example, contends that religious and political prints of the German Reformation (ca. 1517—1555) functioned as popular propaganda: tools in a vigorous campaign aimed at altering people's behavior, attitudes, and beliefs.

Consider each of the choices separately and select all that apply.

17. The passage suggests that an adherent to the "orthodox position" would agree with which of the following statements?

    A. Northern Renaissance prints should be regarded as passive representations of their time.
    B. Northern Renaissance prints were part of a campaign aimed at altering contemporary thinking.
    C. Northern Renaissance prints provide reliable records of contemporary events, opinions, and beliefs.

EXPLANATION: The second sentence of the passage explains the orthodox position: that the prints "reliably record" things. **CHOICE A** is correct because it's right out of that second sentence. Choice B is incorrect, since it's the opposite of the orthodox position and is in fact the position of Scribner and Moxey. **CHOICE C** is correct — again, this is right out of the second sentence.

18. Replacement of the word "passive" with which of the following words results in the least change in meaning for the passage?

    A. disinterested
    B. submissive
    C. flaccid
    D. supine
    E. unreceptive

EXPLANATION: The dash in the second sentence indicates an upcoming explanation, so we can view "reliably record" as an explanation of the word "passive." **CHOICE A**, "disinterested," which means unbiased, is correct, because it means something similar to "reliably record." For example, if you were to reliably record an event, you'd do it without bias or slant. The other choices have no textual support, even though some are synonyms to the word passive in other contexts.

Questions 19 and 20 are based on this passage.

> Geese can often be seen grazing in coastal salt marshes. Unfortunately, their intense grazing removes the grassy covering, exposing marsh sediment; this increases evaporation, which in turn increases salt concentration in marsh sediments. Because of this increased concentration, regrowth of plants is minimal, leading to increased erosion, which leads to a decrease in the fertile topsoil, leading to even less regrowth. In time, the salt marsh becomes a mudflat. This process challenges one of the most widely held beliefs about the dynamics of salt-marsh ecosystems: supposedly, consumers such as geese do not play a large role in controlling the productivity of marsh systems. Rather, the standard view claims, marshes are controlled by bottom-up factors, such as nutrients and physical factors.

19. According to the passage, which of the following is a widely held belief about geese?

A. They are not often seen grazing in coastal salt marshes.
B. They are not the primary consumers in salt-marsh ecosystems.
C. They play only a minor role in the productivity of salt-marsh ecosystems.
D. They are the primary determinants of which resources will thrive in coastal salt marshes.
E. They control the productivity of salt-marsh ecosystems through a bottom-up process.

EXPLANATION: In the next-to-last sentence of the passage, we read that the "widely held belief" is that geese don't play a large role. That's the same thing as **CHOICE C** — different words, but same meaning.

CHOICE A is contradicted by the first sentence.

CHOICE B is wrong — the passage says geese are consumers but doesn't rank them as consumers.

CHOICE D is the opposite of belief.

CHOICE E is a mishmash of the final sentence, which has nothing to do with geese.

20. The author discusses "the standard view" most likely in order to identify a view that

    A. explains the occurrence of the chain of events described in the passage.
    B. provides a summary of the chain of events described in the passage.
    C. is called into question by the chain of events described in the passage.
    D. advocates[147] reassessment of the widely held belief described in the passage.
    E. is undermined by the widely held belief described in the passage.

EXPLANATION: If you're familiar with academic writing, it makes sense to anticipate that an author would identify a standard view in order to contrast it with a non-standard view — and this is exactly what the author does by contrasting the "widely held belief" — that geese do not play a major role — with the position that geese DO play a large role. **CHOICE C** is right because the standard view is a continuation of the position explained by the second-to-last sentence — that geese don't play a major role — and because that position is called into question by the events, which explain how geese DO play a large role.

CHOICE A is wrong – the events explain the non-standard view.

CHOICE B is wrong – the standard view contrasts with the chain of events.

CHOICE D is wrong – the standard view jives with the widely held belief.

CHOICE E is wrong for the same reason as Choice D is wrong.

---

[147] **advocate** (noun:) supporter, ally.
Think: **I voted**.
I voted in the election, proving I'm an advocate of our democracy.

Powerprep Test 2

Verbal

Hard Verbal Reasoning

(15 or more correct on Section 1)

1. Burke is often on slippery ground when it comes to her primary sources; especially _____ is the mode by which she gathered her oral evidence.

   A. crucial
   B. passable
   C. dubious[148]
   D. laudable[149]
   E. ingenious[150]

EXPLANATION: The semicolon helps indicate the continuation between the first clause, where we learn that Burke is on "slippery" ground, and the second. So we can anticipate that a word similar to "slippery" would make sense in the blank. **CHOICE C**, "dubious" (which means doubtful) is correct because it creates a nice continuation of the sentiment that Burke is unreliable.

CHOICE A: "Crucial" ignores the meaning of the first clause (it's unsupported).
CHOICES B, D, E: "Passable," "laudable," or "ingenious" all contradict "slippery."

[148] **dubious** (adjective): doubtful.
Think: **dubious doob**. That is a **dubious doob**, my friend – it looks like oregano if you ask me.

[149] **laudable** (adjective): worthy of praise.
Think: **applaudable**. Something that's **laudable** is **applaudable**.

[150] **ingenious** (adjective): extremely clever.
Think: **genie genius**. The **genie** granted me one wish, which I used to wish for unlimited wishes. "You're a **genius**!" he said. I know, I know.

2. Although grandiose[151] urban railroad stations are often viewed as glorious monuments to their cities, they in fact _____ the cities by enabling the migration of city dwellers to the suburbs.

   A. invigorate
   B. enlarge
   C. enfeeble
   D. delineate
   E. overshadow[152]

EXPLANATION: The phrase "in fact" creates contrast between the description in the first clause and the clause with the blank. A nice anticipation might be "weaken," which would create contrast with "glorious." **CHOICE C** is correct — if the stations "enfeeble" cities, that contrasts with their being viewed as glorious. It also makes sense since if people are leaving cities, they'd be enfeebled.

CHOICE A: "Invigorate" wouldn't create a contrast with "glorious."
CHOICE B: "Enlarge" wouldn't create contrast and makes no sense if the stations are urban and people are moving to the suburbs.
CHOICE D: "Delineate" is unsupported — nothing is being outlined or designated.
CHOICE E: "Overshadow" might seem to create contrast, but it ultimately unsupported by the "migration of city dwellers," which wouldn't have much to do with overshadowing.

---

151 **grandiose** (adjective): affecting grandness by showing off or exaggerating.
Think: **grand ideas**. I have a lot of **grand ideas**: for example, my **grandiose** plan to jump the Grand Canyon with my rocket car.

152 **overshadow** (verb): to be more important than.
Think: **shadow over**. Hanging out with LeBron is rough; not only do his skills **overshadow** mine on the court, but he's so tall that even his **shadow** towers **over** me.

3. The Parisian École des Beaux-Arts (School of Fine Arts) was _____ many nineteenth- and twentieth-century artists, so that by 1930 the associated term "academic art" had become a _____ .

Blank (i)	**Blank (ii)**
A. influential among	D. pejorative
B. ridiculed by	E. conundrum[153]
C. attended by	F. misnomer[154]

EXPLANATION: It's a trial and error double-blank, since due to the absence of descriptive clues, you have to use trial and error to create a logical sentence. The clauses in the sentence have a cause and effect relationship (indicated by the phrase "so that"). Using **CHOICE B**, "ridiculed by," for blank (i) and "pejorative" (**CHOICE D**) for blank (ii) makes sense: if an art school was ridiculed, then academic art could be a pejorative term.

WRONG ANSWER ANALYSIS: Using "influential among" for Blank (i) would necessitate a natural result of having influence for Blank (ii), so we're out of luck there. Same problem for "attended" — no logical result of lots of attendees in the Blank (ii) choices. Similarly, "conundrum" would make us need something puzzling in the first blank, and "misnomer" would need something earlier that indicated academic art was misnamed — close, but it's an accurate term — they just used it as a negative.

---

153 **conundrum** (noun): a difficult problem.
Think: **nun drum**.
Building a **nun drum** is a conundrum because nuns don't like loud noises.

154 **misnomer** (noun): a wrong or inappropriate name.
Think: **mis-name**.
"The Battle of Bunker Hill" is a **misnomer**: it **mis-names** the battle, which was actually fought on the nearby Breed's Hill.

4. Moore was (i)_____ ill at ease. His (ii)_____ had always been a distinguishing feature. It was what made him a good con artist and a good informant. He was one of those men who accepted dares with an easygoing smile and did outrageous things with (iii)_____ that made him successful in the dangerous world in which he operated. But just now he was not feeling very sure of himself.

Blank (i)	**Blank (ii)**	**Blank (iii)**
A. uncharacteristically	D. disquietude	G. an obvious clumsiness
B. predictably	E. magnanimity[155]	H. a sophisticated fearlessness
C. naturally	F. aplomb[156]	I. a wary vigilance[157]

EXPLANATION: This is a good TC to read as a story and get the main idea – that Moore is a cool dude who right now is "not feeling very sure of himself." The easiest blank to figure out seems to be (iii), since it's a continuation of "accepting dares with a smile"; "sophisticated fearlessness" (**CHOICE H**) is correct. **CHOICE F**, "aplomb," (which means "confidence") is correct for blank (ii); it's supported by Moore being a good con artist and by his easygoingness described in the next sentence. Finally, blank (i) must be "uncharacteristically," (**CHOICE A**) since we get so much about Moore's success and confidence.

WRONG ANSWER ANALYSIS: Blank (i): Picking "predictably" or "naturally" undercuts what follows and we'd need a shifting word (like "however") to make them work. Blank (ii): "Disquietude" would then be contradicted by the third sentence (again, we'd need a contrast word to make that work), and no support is evident for "magnanimity." Blank (iii): "An obvious clumsiness" would contrast with "accepting dares... smile" and we don't have any contrast there. "A wary vigilance" would likewise need contrast to work.

---

155 **magnanimous** (adjective): generous.
Think: **magnet for animals**. The "Feed the Birds" lady in Mary Poppins was a **magnet for animals** because she was so **magnanimous** to them.

156 **aplomb** (noun): confidence.
Think: **the bomb**. If you have aplomb, you think you're the bomb.

157 **vigilant** (adjective): watchful; alert.
Think: **vigilante**. If you want some street justice, hire a **vigilante** – they are **vigilant** by nature.

5. The journalism professor's first lecture tackled (i) _____ itself, challenging the journalistic trope that an article has to represent all sides — no matter how marginal — equally. Instead, the professor argued that this impulse to (ii) _____ even obviously (iii) _____ views in order to furnish opposing perspectives is harmful to basic accuracy.

Blank (i)	**Blank (ii)**	**Blank (iii)**
A. marketability	D. approve	G. controversial
B. objectivity	E. present	H. fringe
C. partisanship[158]	F. denigrate[159]	I. straightforward

EXPLANATION: The first blank is explained by the rest of the sentence it's in; if the professor challenged the belief that an article "has to represent all sides," his lecture would be tackling "objectivity" **(CHOICE B)**. We know that blank (ii) is referring to presenting all sides because it comes right after "this impulse," indicating the impulse is the thing we just heard about. The only choice that makes sense for (ii) is therefore "present" (**CHOICE E**). Blank (iii) is supported by "no matter how marginal" in the previous sentence as well as by "harmful to… accuracy," which all points towards "fringe" (**CHOICE H**) — creating the logic that publishing fringe views in the name of objectivity compromises accuracy.

WRONG ANSWER ANALYSIS: "Marketability" isn't supported by anything that follows blank (i). "Partisanship" might seem to work given the broader context, but doesn't work with representing all sides equally — in fact — it contrasts that. Blank (ii): It's more about representation than taking sides, so "approve" and "denigrate" don't fit. Blank (iii): "Controversial" doesn't go with our earlier clue about "marginal" views, and "straightforward" doesn't, either.

[158] **partisan** (adjective): biased toward one side.
Think: **Party's son**. The chairman of the Democratic **Party's son** was understandably **partisan** about politics.

[159] **denigrate** (verb): to attack the reputation of or to put down.
Think: **deny I'm great**. If you **deny I'm great**, you **denigrate** me.

6. An esteemed literary critic, Mr. Wood has put together a (i) _____ volume about literary technique, his playful exuberance (ii) _____ the dry, jargon-strewn tradition of academic criticism. Mr. Wood can't claim to be (iii) _____ ; he has restricted himself to citations available in his personal library. Nor does he attempt to be methodical, as chapters proceed in higgledy-piggledy fashion. But few books about novel writing provide such insights into the craft.

Blank (i)	**Blank (ii)**	**Blank (iii)**
A. deft	D. wonderfully at odds with	G. entertaining
B. pretentious	E. heavily influenced by	H. accessible
C. comprehensive	F. largely superseded by	I. thorough

EXPLANATION: Blank (ii) is easy to go after first, since "playful exuberance" contrasts sharply with "dry, jargon-strewn"; using **CHOICE D**, "wonderfully at odds with," logically goes with that contrast. Then blank (iii) is supported by the fact that Wood has "restricted himself" — therefore he can't be "thorough" (**CHOICE I**). Moving back to blank (i), we now know more of the whole story, and "deft" (**CHOICE A**) works with the big picture, especially the last sentence.

WRONG ANSWER ANALYSIS: Blank (i): "Pretentious" and "comprehensive" quickly clash with "playful exuberance"; later, Wood's "(restrictions)" also go against "comprehensive." Blank (ii): Heavily influenced by" would create continuity, not contrast, and "largely superseded by" would go against the main idea of the passage — that Wood is playfully skillful. Blank (ii): Neither "entertaining" nor "accessible" go with the explanation following the semicolon.

Questions 7 and 8 are based on this passage.

> Saturn's E ring consists of particles so small that they would be dispersed by solar radiation pressure in a few tens of thousands of years. That the ring exists today suggests, therefore, that it originated in the relatively recent past — but how? Researchers suggest that Enceladus, one of Saturn's moons, maybe responsible. This icy moon has no craters, possibly because liquid water from its interior flowed across the surface in the relatively recent past, erasing all preexisting impact features. An impact into Enceladus within the past thousand years or so may have blasted liquid water into space. Water droplets would have frozen quickly into ice crystals, which may then have drifted through the Saturnian system and formed into the E ring.

Consider each of the choices separately and select all that apply.

7. Which of the following, if true, would challenge the hypothesis presented in the passage concerning Enceladus and Saturn's E ring?

   A. Enceladus is not the only moon orbiting Saturn.
   B. Enceladus's lack of craters is not due to erasure by water.
   C. No impact has occurred on Enceladus in the past few tens of thousands of years.

EXPLANATION: The hypothesis basically says that the E ring was caused by water crystals blasted into space by a recent impact into Enceladus. Choice A isn't supported by anything — in fact, the passage acknowledges Saturn has multiple moons, and it would be weird if the author presented a hypothesis that could be challenged by a fact he brings up! **CHOICE B** does raise an issue — if the craters weren't erased by water, then that removes a part of the chain of events the author uses to create his hypothesis. Likewise, **CHOICE C** is a problem: no recent impact, no water crystals in the "past thousand years or so."

8. Select the sentence that points out the significance of the fact that the particles that make up Saturn's E ring are susceptible to dispersion.

EXPLANATION: **It's the second sentence** , since that sentence is presented as a logical conclusion based on the fact that the particles would disperse in a few tens of thousands of years; i.e., they therefore must be recent.

Questions 9 to 11 are based on this passage.

Since the 1970s, archaeological sites in China's Yangtze River region have yielded evidence of sophisticated rice-farming societies that predate signs of rice cultivation elsewhere in East Asia by a thousand years. Before this evidence was discovered, it had generally been assumed that rice farming began farther to the south. This scenario was based both on the geographic range of wild or free-living rice, which was not thought to extend as far north as the Yangtze, and on archaeological records of very early domestic rice from Southeast Asia and India (now known to be not so old as first reported). Proponents of the southern-origin theory point out that early rice-farming societies along the Yangtze were already highly developed and that evidence for the first stage of rice cultivation is missing. They argue that the first hunter-gatherers to develop rice agriculture must have done so in this southern zone, within the apparent present-day geographic range of wild rice. Yet while most stands of wild rice reported in a 1984 survey were concentrated to the south of the Yangtze drainage, two northern outlier populations were also discovered in provinces along the middle and lower Yangtze, evidence that the Yangtze wetlands may fall within both the present-day and the historical geographic ranges of rice's wild ancestor.

9. Which of the following, if true, would most clearly undermine[160] the conclusion that the author makes based on the 1984 survey?

   A. Areas south of the Yangtze basin currently have less wild-rice habitat than they once did.
   B. Surveys since 1984 have shown wild rice populations along the upper Yangtze as well as along the middle and lower Yangtze.
   C. The populations of wild rice along the Yangtze represent strains of wild rice that migrated to the north relatively recently.
   D. Early rice-farming societies along the Yangtze were not as highly developed as archaeologists once thought.
   E. In East Asia, the historical geographic range of wild rice was more extensive than the present-day geographic range is.

EXPLANATION: It's important, first, to figure out what the conclusion is. We can paraphrase it as "wild rice did extend into the Yangtze wetlands in the historical past." This conclusion is presented as a contrast to the "southern origin" theory, which says that the wild rice did NOT extend into those wetlands. **CHOICE C** is right because it raises an alternate explanation to the fact that the wild rice was there historically — if it migrated to the north relatively recently, it might very well have not been there historically.

[160] **undermine** (verb): to weaken in a sneaky way.
Think: **under mine**.
Under the ground lay a **mine** designed to **undermine** the army's advance.

CHOICE A: Seems irrelevant; we need something that raises an objection to the rice extending into the Yangtze basin, not south of it.

CHOICE B: This, if anything, supports the conclusion (see correct answer explanation).

CHOICE D: This doesn't shed any light on whether rice was in the Yangtze basin in the past.

CHOICE E: This is, if anything, really weak support for the conclusion. Being "more extensive" doesn't necessarily mean the rice was in the Yangtze basin.

10. Based on the passage, skeptics of the idea that rice cultivation began in the Yangtze River region can point to which of the following for support?

    A. Lack of evidence supporting the existence of rice-farming societies along the Yangtze at an early date.
    B. Lack of evidence regarding the initial stages of rice cultivation in the Yangtze region.
    C. Recent discoveries pertaining to the historical geographic range of rice's wild ancestor.
    D. New information regarding the dates of very early domestic rice from Southeast Asia.
    E. New theories pertaining to how hunter-gatherers first developed rice agriculture in East Asia.

EXPLANATION: We can predict that the skeptics will be the same people who are the proponents of the southern origin theory, since they argue against rice cultivation happening in the Yangtze basin: "**Proponents of the southern-origin theory point out that early rice-farming societies along the Yangtze were already highly developed and that evidence for the first stage of rice cultivation is missing. They argue that the first hunter-gatherers to develop rice agriculture must have done so in this southern zone, within the apparent present-day geographic range of wild rice."**

The only one of the choices they mention is **CHOICE B** — since they say "evidence for the first stage of rice cultivation is missing."

CHOICE A: The proponents DO say there were early rice-farming societies along the Yangtze, but say there isn't evidence of the first stage of cultivation.

CHOICE C: The recent discoveries help the skeptics' opponents theory, since the discoveries lend support to the claim that the rice did extend into the Yangtze basin in the past.

CHOICE D: This, if anything, weakens the proponents' claims: the author tells us the "old" information about early domestic rice — the information the southern origin people used to support their theory — was wrong.

CHOICE E: It's not really about HOW the hunter-gatherers developed rice — it's about WHERE they did.

11. Which of the following can be inferred from the passage about the "southern-origin theory"?

    A. The theory is based on an unconventional understanding of how hunter-gatherers first developed rice agriculture.
    B. The theory fails to take into account the apparent fact that evidence for the first stage of rice cultivation in the north is missing.
    C. The theory was developed primarily in response to a 1984 survey of wild rice's geographic range.
    D. Reassessment of the dates of some archaeological evidence has undermined support for the theory.
    E. Evidence of sophisticated rice-farming societies in the Yangtze region provides support for the theory.

EXPLANATION: **CHOICE D** is correct because the author tells us the "old" information about early domestic rice — the information the southern origin people used to support their theory — was wrong. Since the southern origin theory was based in part on the evidence that was found to be misdated, the reassessment undermines the theory.

CHOICE A: There's nothing unconventional mentioned about how the hunter-gatherers developed agriculture.

CHOICE B: This is a fact the theory uses to argue against the, if you will, "northern-origin theory."

CHOICE C: The theory predates the 1984 study.

CHOICE E. This neither supports nor undermines the theory (for example, the theory doesn't have a problem with that evidence since it says a cultivation stage was missing).

Select the two answer choices that fit the meaning of the sentence as a whole and produce completed sentences that are alike in meaning.

12. That the book's argument was _____ became clear as soon as reviews appeared: there were holes, and reviewers delighted in pointing them out.

A. wanting[161]	D. penetrating
B. convoluted	E. flawed
C. unintelligible	F. complex

EXPLANATION: The portion of the sentence after the colon explains the part before it: if there are holes, then it would make sense that the book's argument was "wanting' or "flawed" (**CHOICES A** and **E**).

CHOICE B: Holes don't mean the book is "convoluted."
CHOICE C: "Unintelligible" doesn't necessarily follow from having holes.
CHOICE D: "Penetrating" would be a compliment!
CHOICE F: "Complex" has nothing to do with holes.

13. Some researchers worry that if there is a causal relationship between warming tropical sea surface temperatures and the marked increase in Atlantic hurricane activity since the early 1990s, this connection could _____ larger changes.

A. presage	D. avert
B. exacerbate[162]	E. portend
C. obscure	F. forestall[163]

EXPLANATION: Since the two related trends are ongoing, it would make sense that their connection could presage or portend (**CHOICES A** and **E**) larger changes in the future.

CHOICE B: You can't really "exacerbate" a change (plus there's no synonym for exacerbate).
CHOICE C: Nothing is mentioned about hiding the changes.
CHOICE D: "Avert" is the opposite of what the sentence suggests.
CHOICE F: "Forestall?" Nope — the sentence says the changes are going to happen.

---

161 **wanting** (adjective): lacking or absent.
Think: **wanting a boyfriend**. **Wanting** (verb) **a boyfriend** is normal if the romance in your life is **wanting** (adjective).

162 **exacerbated** (verb): made more severe; aggravated.
Think: **exasperated**. I'm **exasperated** — not only did you get us lost in the woods; you **exacerbated** the situation by dropping our phone in the swamp.

163 **forestall** (verb): to delay, hinder, or prevent.
Think: **for stall**. The booby traps I surrounded my fort with will **forestall** invaders — they're **for stalling**.

14. The dog's appearance of _____ became increasingly irritating, his whines became more wheedling, his manner more imploring.

A. supplication
B. gratification
C. insolence[165]
D. entreaty[164]
E. willfulness
F. contentment

EXPLANATION: Lots of descriptive clues here: "irritating," "whines," "wheedling," "imploring." It makes sense to use supplication and entreaty (**CHOICES A** and **D**) — the dog is begging!

CHOICE B: Nothing supports "gratification," which is way too positive.
CHOICE C: The dog might seem insolent to you, but a whining dog need not be insolent. Plus, there's no synonym.
CHOICE E: Again, the dog could be construed as willful but he need not be (and no synonym).
CHOICE F: Content dogs don't whine!

15. The demands of _____ notwithstanding, a page or two in Dahl's recent book on democracy that considered what public-choice economics has to say about "democratic failure" — or at least a clear signpost to that literature — would have been very well spent.

A. clarity
B. brevity[166]
C. comprehensiveness
D. economy
E. cogency
F. thoroughness

EXPLANATION: "Notwithstanding" is a contrast word, so everything that follows should contrast with the content before "notwithstanding." After that word, we get that it would have been nice to get more info about "that literature," so using either brevity or economy (**CHOICE B** or **D**) would create a contrast with the sentence's exhortation to the book to be more explicit.

CHOICE A: "Clarity" doesn't create a contrast.
CHOICE C: "Comprehensiveness" would create continuation.
CHOICE E: "Cogency" wouldn't create contrast.
CHOICE F: "Thoroughness" creates continuation.

---

164 **entreat** (verb): to plead.
Think: **in retreat**. **In retreat**, the fleeing general **entreated** us to spare his soldiers' lives.

165 **insolence**: noun, rudeness, insensitivity
Think: **in silence** To punish me for my **insolence**, my kindergarten teacher forced me to sit in the corner **in silence**.

166 **brevity** (noun): shortness of duration.
Think: **abbreviate**.
I know your speech is brief but **abbreviate** it even more – this professor actually awards points for **brevity**.

Question 16 is based on this passage.

Upon maturity, monarch butterflies travel hundreds of miles from their places of origin and lay their eggs on milkweed. The caterpillars that emerge feed on milkweed and absorb the glycosides in milkweed sap. The specific glycosides present in milkweed differ from region to region within the monarch butterfly's range. Mature butterflies retain the glycosides they absorb as caterpillars. Clearly, therefore, the glycosides in a mature monarch butterfly could be used to determine its place of origin.

16. Which of the following, if true, most strengthens the argument?

A. Mature monarch butterflies do not feed on parts of milkweed that contain glycosides.
B. The glycosides in milkweed sap are slightly toxic to caterpillars of other species.
C. The vast majority of the monarch butterflies that are laying eggs in a given region will have traveled there from a single region.
D. There are substances other than glycosides in milkweed sap that accumulate in a monarch caterpillar and are retained in the body of the mature butterfly.
E. There are certain glycosides that are found in the sap of all milkweeds, no matter where they grow within the monarch butterfly's range.

EXPLANATION: Let's isolate the argument: that " the glycosides in a mature monarch butterfly could be used to determine its place of origin." The right answer, like that of many argument questions, might not be what you'd expect. **CHOICE A** is correct. If a mature monarch fed on the parts of milkweed that contain glycosides in Maine, and someone tested that monarch to see where it originated, they'd think Maine — when it could have originated in Florida. I.e., the glycosides the mature monarch ingests could override the original glycosides it ingested as a caterpillar.

CHOICE B: Who cares about other species? We're talking about monarchs.

CHOICE C: This has nothing to do with determining where an individual monarch came from.

CHOICE D: We don't care about other substances, since we're making the argument we can use glycosides to tell.

CHOICE E: This, if anything, would weaken the argument by making it harder to use a glycoside to determine where a monarch originated.

Questions 17 and 18 are based on this passage.

During the Great Depression of the 1930s, the prevailing aesthetic[167] views among artists in the United States were shaped by the harsh economic realities of the period, when millions of Americans found themselves unemployed or dispossessed. Not surprisingly, most artists of this period chose to work in socially oriented styles. However, while the Regionalists—led by Thomas Hart Benton, Grant Wood, and John Steuart Curry—embraced a rightist, isolationist ideology, recoiling from the present and seeking to recapture in their paintings America's agrarian past, the Social Realists—among them William Gropper and Ben Shahn—depicted the condition of workers engaged in a class struggle. Both groups built upon earlier traditions in American painting that now assumed a new urgency.

Consider each of the choices separately and select all that apply.

17. According to the passage, which of the following was true of both the Regionalists and the Social Realists during the 1930s?

    A. They sought to recapture a less troubled period in America's history.
    B. They developed artistic traditions that were already in existence.
    C. Their paintings were deeply affected by the economic hardships of the period.

EXPLANATION: Let's see…

CHOICE A: Nope — just the Regionalists "(seek) to recapture America's agrarian past."

CHOICE B: Yes — the last sentence confirms they both "built upon earlier traditions."

CHOICE C: Yes — the first sentence tells us that artists' aesthetic views were "shaped by the harsh economic realities of the period."

CHOICES B and **C** are correct.

---

[167] **aesthetic** (adjective): relating to beauty.
Think: **athletic body**. If you're **athletic**, then you're likely to have a **body** that is aesthetically pleasing.

18. It can be inferred from the passage that the Regionalists and the Social Realists differed in which of the following ways?

    A. The Regionalists were primarily concerned with depicting actual events in history, while the Social Realists were primarily concerned with portraying an idealized future.
    B. The Regionalists were primarily concerned with the economic ramifications of the Depression, while the Social Realists were primarily concerned with its social ramifications.
    C. The Regionalists lacked a sense of urgency, while the Social Realists pressed for change.
    D. The Regionalists tended to romanticize the past, while the Social Realists depicted the past in harsh terms.
    E. The political outlook of the Regionalists tended to be more conservative than that of the Social Realists.

EXPLANATION: The right answer is **CHOICE E**: if the Regionalist embraced a "rightist ideology" and attempted to recapture the past, that makes them more conservative than the Social Realists, who were more interested in depicting workers' struggles.

CHOICE A: No — the Regionalists wanted to escape to the past, and the Social Realists were concerned with the present.
CHOICE B: The Regionalists weren't concerned with economics.
CHOICE C: It's hard to support that the Regionalists lacked urgency.
CHOICE D: While the Regionalists may have romanticized the past, the Social Realists didn't address the past at all.

Questions 19 and 20 are based on this passage.

Published in 1829, David Walker's *Appeal* delivered a furious indictment[168] of American slavery and racism while articulating the necessity of resisting immoral authority by any means necessary. The significance of Walker's pamphlet is not limited to this ideological message, however. Walker believed that the disparity between the condition of Black Americans and the "unalienable rights" and republican principles laid out in the Declaration of Independence could be a rallying point for Black Americans seeking to be recognized as citizens. Like Thomas Paine, whose 1776 pamphlet Common Sense helped propel the American colonies toward independence, Walker recognized the importance of claiming a public voice through which to communicate with both Black and White Americans, and the utility of using printed documents to do so.

---

[168] **indictment** (noun): a criticism or accusation.
Think: **dictaphone meant**.
The fact that the defendant had illegally used a **dictaphone** to record private conversations with her employer, which she later shared online, meant that there were grounds for an **indictment** by the court.

Consider each of the choices separately and select all that apply.

19. The passage indicates that Walker would probably have agreed with which of the following about the Declaration of Independence?

    A. It presents political ideals that the United States had not lived up to.
    B. It could play a useful role in engendering social progress.
    C. It is often misinterpreted by its most zealous[169] admirers.

EXPLANATION: Hmmm...

CHOICE A: Yes — the passage highlights the "disparity between condition of Black Americans" and the right laid out by the Declaration, suggesting that Walker's use of this as a rallying point meant that he thought the Declaration wasn't being lived up to.

CHOICE B: Yes — the "rallying point" involves both the disparity and the Declaration's principles, and in the last sentence, it's clear that the Declaration is what the author is referring to when she says "Walker recognized the importance of…using printed documents to do so."

CHOICE C: Nope — no evidence that Walker thinks admirers of the Declaration misinterpreted it; in fact, for him, it was a useful tool.

Consider each of the choices separately and select all that apply.

20. The passage suggests that Walker would have agreed with which of the following about resistance to immoral authority?

    A. The written word offered one effective aid to such resistance.
    B. Such resistance should not be limited to spoken and written expressions of dissent.
    C. Such resistance was crucial if Black Americans were to achieve their full rights as citizens.

EXPLANATION: Let's see:

CHOICE A: Yes — the last sentence makes it clear Walker saw the usefulness of printed documents.

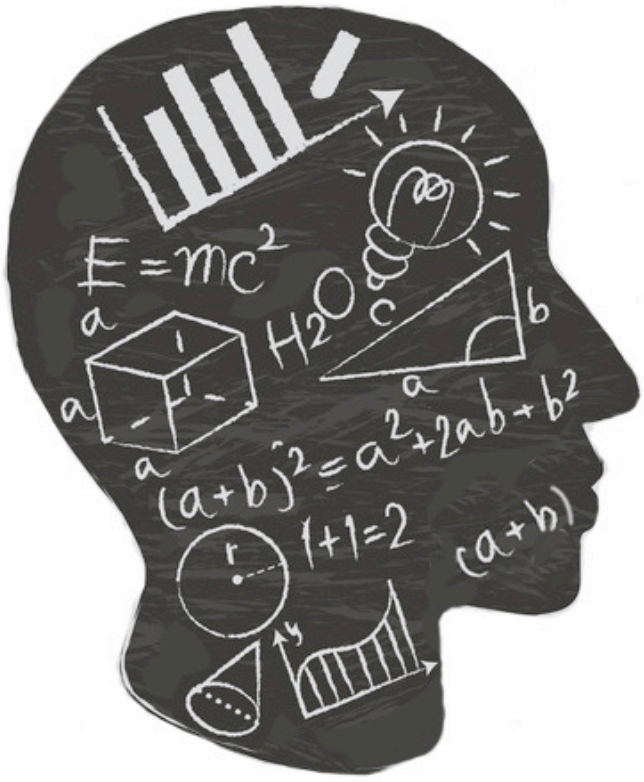
CHOICE B: Yep — "by any means necessary" means no limits.

CHOICE C: Yep — the whole passage is about the point of resistance — to achieve equal rights.

---

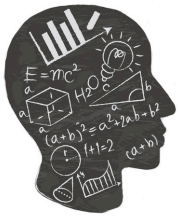
169 **zealous** (adjective): passionate.
Think: **jealous**.
Zoe was so **zealous** about her first boyfriend that she became **jealous** of every other girl he knew.

| **NOTES**



Powerprep Test 2

Quantitative



Powerprep Test 2

Quantitative Reasoning Sections

- ***There is only one possible Section 3 (the first math section).***
- ***You get "Easy" Section 5 if you get between 0-9 correct on Section 3.***
- ***You get "Medium" Section 5 if you get between 10-14 correct on Section 3.***
- ***You get "Hard" Section 5 if you get between 15-20 correct on Section 3.***

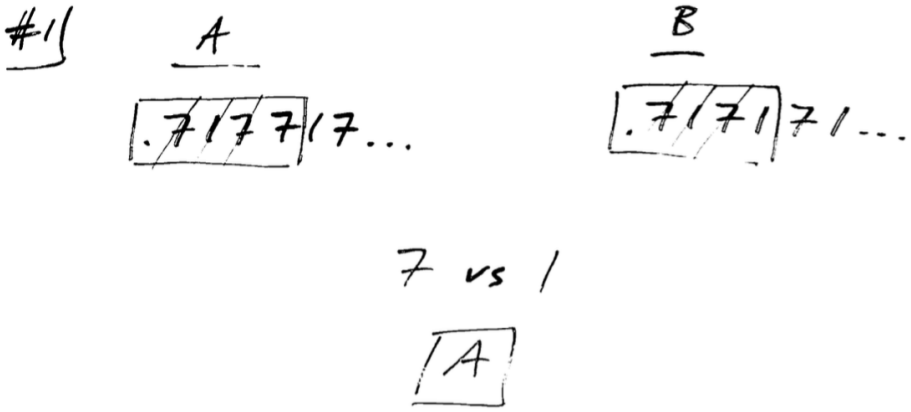
1) In a decimal number, a bar over one or more consecutive digits means that the pattern of digits under the bar repeats without end.

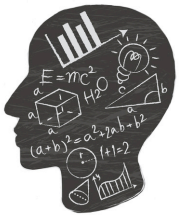
   For example, $0.\overline{387} = 0.387387387....$

Quantity A	Quantity B
$0.\overline{717}$	$0.\overline{71}$

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Start writing out each quantity. When you get to the ten-thousandths decimal place, Quantity A will be .7177 while Quantity B will be .7171. Thus, the greater value is Quantity A (**CHOICE A**).



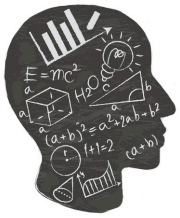


2. Of 30 theater tickets sold, 20 tickets were sold at prices between $10 and $30 each and 10 Tickets were sold at prices between $40 and $60 each.

Quantity A	Quantity B
The average (arithmetic mean) of the prices of the 30 tickets	**$50**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Quantity B will always be greater (**CHOICE B**). Even if the ticket prices are maximized (20 tickets at $30 and 10 tickets at $60), then the weighted average ticket price would be only $40: [(20)($30) + (10)($60)] / 30 = $40. Logically, if there were equal numbers of $30 and $60 tickets, then the average price would be halfway between those numbers, or $45. In this case, there are twice as many cheaper tickets as expensive tickets, so the average is closer to the cheaper price by a 2:1 margin. As it stands, however since there are more $30 than $60 tickets, we don't have to do the exact math: the average is weighted toward $30 and will thus be below the $45 halfway point.



3. $x > 1$

Quantity A	Quantity B
$\frac{x}{x+1}$	$\frac{-x}{1-x}$

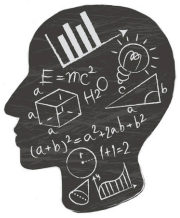
A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: The easiest way to solve a question like this is to simply plug in numbers. Let's start with an obvious integer such as 2; however, it's important to note that the question does not necessarily state that *x* is an integer…even something as small as 1.01 would suffice, and hence should also be tested just in case.

When we plug in $x = 2$, we get 2/3 for quantity A and (-2/-1) = 2 for Quantity B. $2/3 < 2$, so the answer would be B in this case.

Now that we've got B in one case, we want to try to get A or C, but eventually we discover that this is impossible, no matter which numbers we try, even if the numbers for *x* are very large (although the answers get closer as the numbers get larger, Quantity A never quite reaches Quantity B. For example, when $x = 99$, Quantity A is equal to 99/100, or .99, and Quantity B is equal to 99/98, which is slightly larger than 1.

What's the concept at play here? First, realizing that both fractions will result in positive outcomes. Second, understanding that when the numerator is less than the denominator in a positive fraction, that the value of the fraction is less than one, and vice-versa. Hence the answer is **CHOICE B**.

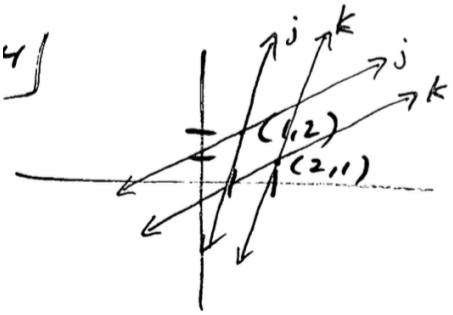


4. In the *xy*-plane, the point (1, 2) is on line *j*, and the point (2, 1) is on line *k*. Each of the lines has a positive slope.

Quantity A	**Quantity B**
The slope of line *j*	**The slope of line *k***

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Here the concept is the key: ONE POINT IS NEVER ENOUGH TO DETERMINE THE SLOPE OF A LINE. Hence, the answer is **CHOICE D**, because a line that passes through one point only can have an infinite number of slopes, from very negative to very positive (see below).

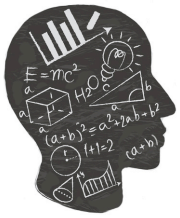


Concept: no way to determine slope based on one point only.

red version: $j > k$ (A) in this case

blue version: $k > j$ (B) in this case

Thus, [D]



5. For each positive integer n, the nth term of the sequence S is $1 + (-1)n$.

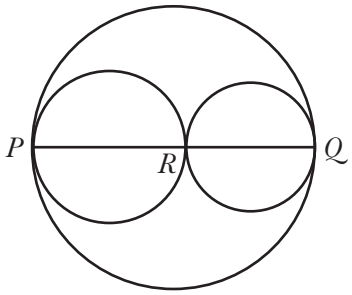
Quantity A	Quantity B
The sum of the first 39 terms of S	**39**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Sequence questions often include fancy, intimidating wording, but are usually just a matter of testing numbers, starting with the 1st term (n = 1). When n = 1, the 1st term of the sequence S is $1 + (-1)^1$, which is $1 - 1 = 0$. When $n = 2$, the 2nd term of the sequence S is $1 + (-1)^2$, which is $1 + 1 = 2$.

If you understand the concept that the value of $(-1)^n$ will always be negative when n is odd, and that it will always be positive when n is even, then there is no need to continue any further. Because $-1 + 1 = 0$, then every odd power of n will be equal to 0, and because $1 + 1 = 2$, every even power of n will be equal to 2. Hence, our job is to simply count the number of even terms between 1 and 39, and multiply that number by 2. There are (38/2) = 19 even numbers between 1 and 39, so 19 x 2 = 38, which is 1 fewer than Quantity B. $38 < 39$, so the answer is **CHOICE B**.

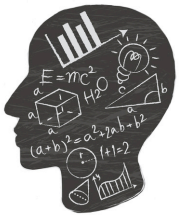
6.



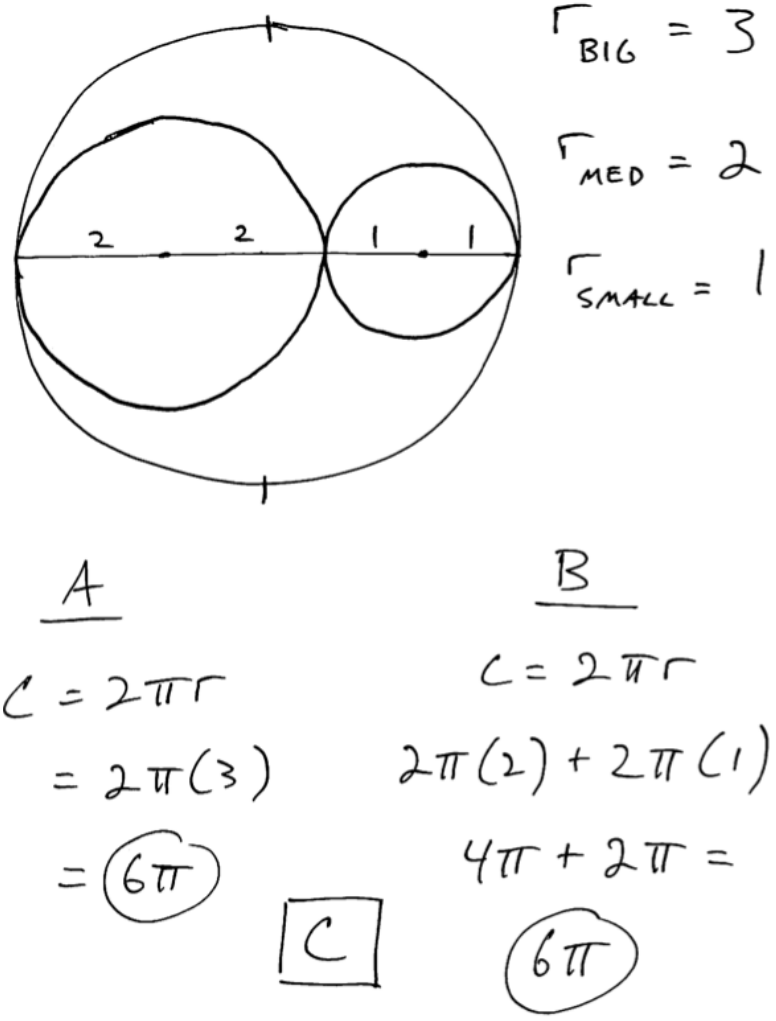
Three circles with their centers on line segment PQ are tangent at points P, R, and Q, where point R lies on line segment PQ.

Quantity A	Quantity B
The circumference of the largest circle	**The sum of the circumferences of the two smaller circles**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

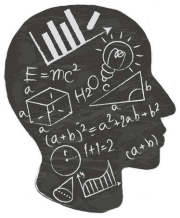


EXPLANATION: Method #1 is to simply "make it true" and test it.



Method #2 is to understand the concept at play here. Because the equation for circumference is $2\pi r$, or πd which is essentially just the radius times a constant, that means that *circumference and radius/diameter are directly proportional*. That is to say that *as the radius/diameter of a circle increases or decreases, so does the circumference, at the same rate*. In addition, this rule of direct proportion also means that if we were to split the one large diameter into smaller circles, then the circumferences of the smaller circles added together would equal the circumference of the larger circle. If you have this concept memorized, then there is no need to do the math, but the best approach for most is a combination of testing it ("make it true") and understanding the underlying concept.

The answer is **CHOICE C**.



7. n is a positive integer.

Quantity A	**Quantity B**
The remainder when n is divided by 5	**The remainder when $n + 10$ is divided by 5**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Again, this is a matter of testing numbers, and understanding the concept. The relationship between the number *n* and the number *n + 10* is a rather easy one to grasp once you start testing numbers.

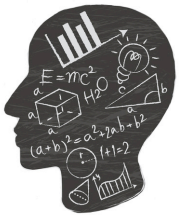
If $n = 6$, then Quantity A = 1 and Quantity B = 1 (when you put 5 into 6, 1 remains (1R1), and when you put 5 into 16, 1 also remains (3R1)).

If $n = 7$, then Quantity A = 2 and Quantity B = 2 (when you put 5 into 7, 2 remain (1R2), and when you put 5 into 17, 2 also remain (3R2)).

If $n = 8$, then Quantity A = 3 and Quantity B = 3 (when you put 5 into 8, 3 remain (1R3), and when you put 5 into 18, 3 also remain (3R3)).

If $n = 10$, then Quantity A = 0 and Quantity B = 0 (when you put 5 into 10, it fits in twice and 0 remain (2R0), and when you put 5 into 20, it fits in four times and 0 remain (4R0).

Eventually, you will get the hint, whether or not you fully comprehend the concept being tested. The answer is **CHOICE C**.



8. k is an integer for which $\frac{1}{2^{1-k}} < \frac{1}{8}$

Quantity A	Quantity B
k	- 2

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: See below. One trick is understanding that 8 can be written as 2 cubed (this is another way of saying "2 to the 3rd power." Another trick is realizing that $\frac{1}{A} < \frac{1}{B}$ can be re-written as A > B, and vice-versa.

#8 $\frac{1}{2^{1-k}} < \frac{1}{8}$ CONCEPT: $\frac{1}{4} < \frac{1}{3}$ so

$2^{1-k} > 8 = 2^3$

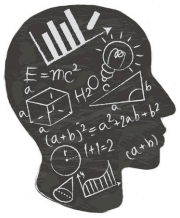
$2^{1-k} > 2^3$

$[1-k > 3]$ -1

$[-k > 2]$ $\div -1$

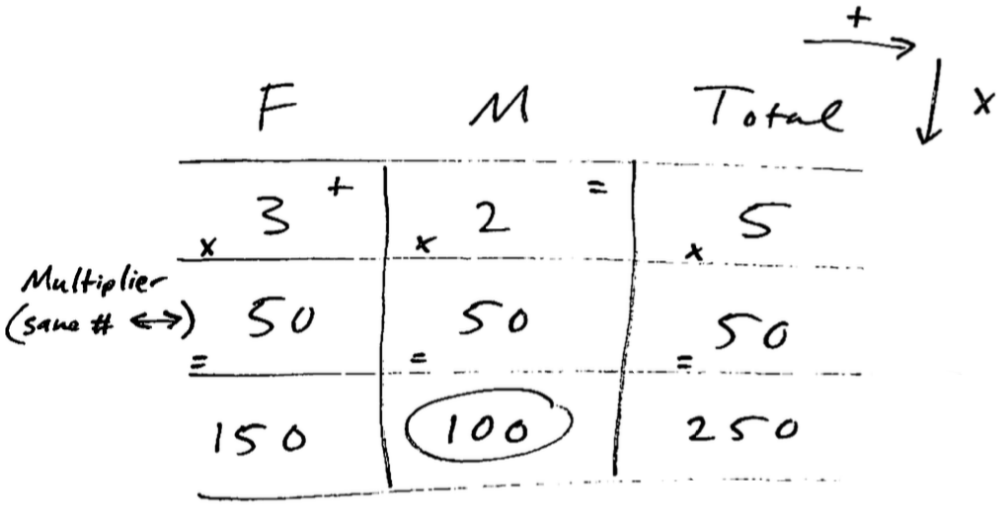
$k < -2$

B



9. At Company Y, the ratio of the number of female employees to the number of male employees is 3 to 2. If there are 150 female employees at the company, how many male employees are there at the company?

EXPLANATION: Use a ratio box to solve.



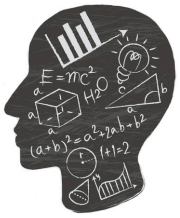
If you're confused about the diagram above, here is an explanation:

Row 1: This is the actual ratio. Simply add the parts together to get the total.

Row 3: This is where you enter the actual values.

Row 2: $3x = 150$ and $x = 50$, so 50 is my "multiplier" (same number all the way across)

The answer is **100**.



10. If $\frac{a-b}{a+b} = 2$ and $b = 1$, what is the value of a?

A. 1
B. 0
C. -1
D. -2
E. -3

EXPLANATION: Plug and chug.

$$\frac{a-b}{a+b} = 2 \qquad b = 1 \qquad \text{so}$$

$$\frac{a-1}{a+1} = \frac{2}{1} \qquad \text{cross multiply!}$$

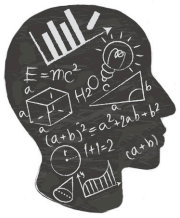
$$a-1 = 2(a+1)$$

$$a-1 = 2a+2$$

$$-3 = a \qquad \boxed{E}$$

=

The answer is **CHOICE E**.

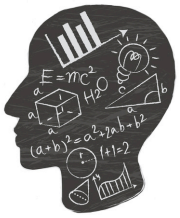


11. A quality control analyst collected 200 measurements of length. The range of the 200 measurements is 17 centimeters, and one of the measurements is 49.5 centimeters. Which of the following could be another one of the 200 measurements, in centimeters?

    Indicate *all* such measurements.

    A. 31.0
    B. 32.0
    C. 33.0
    D. 34.0

EXPLANATION: Given a range (high term minus low term) of 17 centimeters and a single measurement of 49.5 centimeters, we can simply travel 17 centimeters in each direction to determine the measurements that may lie within the given range. 49.5 – 17 = 32.5, and 49.5 + 17 = 66.5, so any answer between 32.5 and 66.5 could work. Thus the answers are **CHOICES C and D**.

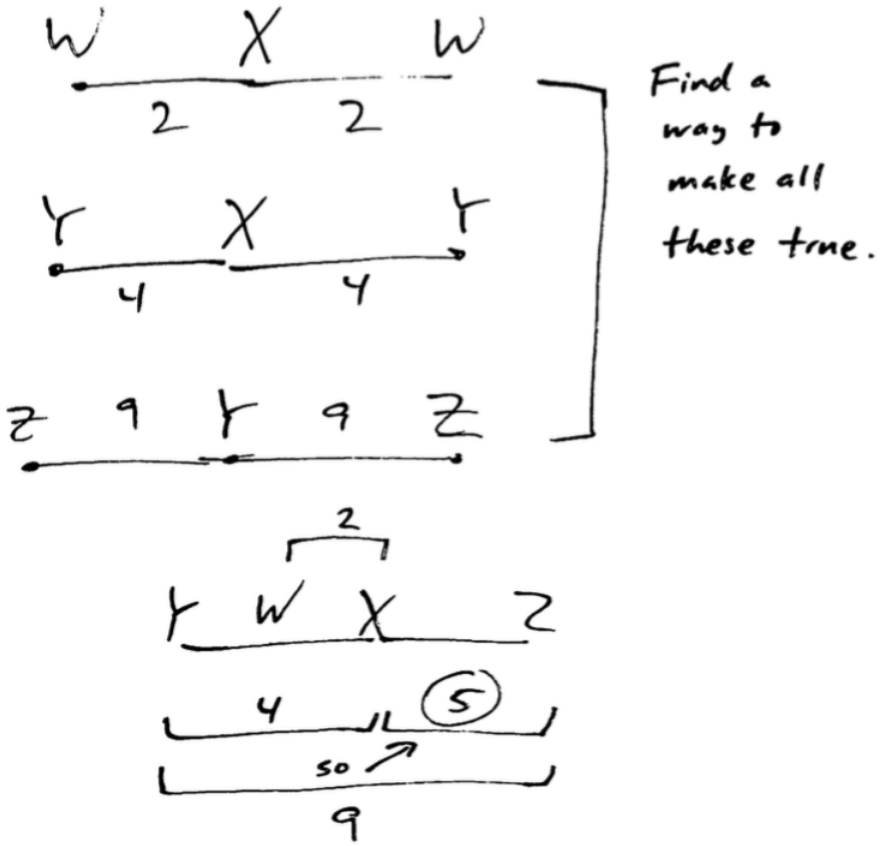


12. Points W, X, Y, and Z are on a line, not necessarily in that order. The distance between W and X is 2, the distance between X and Y is 4, and the distance between Y and Z is 9. Which of the following could be the distance between X and Z?

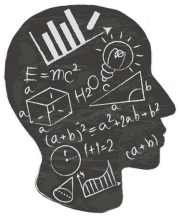
A. 3
B. 5
C. 7
D. 9
E. 11

EXPLANATION: Any time that the GRE mentions a visual but does not provide it, you must try to create the visual yourself — otherwise you are making the question harder than it needs to be.

The trick for a question like this is to not try to put together all the puzzle pieces right away. Instead, create a separate visual for each of the three facts presented. Then and only then should you try to make all of them true at once. You should also make liberal use of brackets!



The answer is **CHOICE B**.



13. A certain identification code is a list of five symbols: S1 S2 D1 D2 D3. Each of the first 2 symbols must be one of the 26 letters of the English alphabet, and each of the last 3 symbols must be one of the 10 digits. (Repeated letters and digits are allowed.) What is the total numbers of different identification codes?

A. 1,757,600
B. 676,000
C. 468,000
D. 1,676
E. 82

EXPLANATION: The trick here is to use your calculator and simply multiply the total number of choices for each symbol. L x L x D x D x D = 26 x 26 x 10 x 10 x 10 = 676,000, so **CHOICE B** is correct.

Questions 14-16 are based on the following data

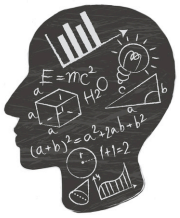
MEDIAN HOME PRICES IN THE UNITED STATES BY SELECTED REGION

Region	Median Home Prices, 1983	Percent Increase in Median Home Prices from 1983 to 1986
Northeast	$65,000	22.9%
West	$97,000	11.3%
South	$62,000	11.0%
North Central	$55,000	9.3%

MEDIAN HOME PRICES AND RELATED DATA FOR SELECTED NORTHEASTERN CITIES, 1986
(All figures median amounts.)

City	Price of Home	Down Payment	Monthly Housing Cost*	Homebuyer's Annual Income
New York	$129,700	$42,250	$1,141	$49,692
Boston	$126,000	$30,000	$1,116	$55,956
Newark	$116,000	$29,450	$1,139	$54,660
Danbury	$95,950	$19,750	$954	$51,888
Nashua	$82,000	$10,650	$891	$43,200
Philadelphia	$69,450	$17,500	$733	$39,180
Trenton	$66,000	$16,500	$703	$37,434
Pittsburgh	$54,150	$11,500	$673	$40,680

*Housing cost consists of mortgage payment, real estate taxes, utilities, and hazard insurance.



14. In 1986, for which of the cities was the median home price minus the median down payment greatest?

    A. New York
    B. Boston
    C. Newark
    D. Danbury
    E. Pittsburgh

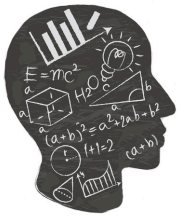
EXPLANATION: Graph and chart questions are the bane of many a GRE test-taker's existence, because they take a while to answer and sometimes the charts can be tricky to interpret. Thus, you may want to skip over these questions and save them for the end.

That being said, this question is not particularly difficult, though it is work intensive. For all five cities in the answer choices, we must determine the median home price and the median down payment from 1986. Luckily this is given to us in Chart #2 (see title).

Another way to save time on questions like these is to "eyeball" them to get a quick estimate of the answers with the largest difference.
(all answers rounded / in thousands, for ease of calculation)

A. New York = 129 – 42 = 87
B. Boston = 126 – 30 = 96
C. Newark = 116 – 29 = 87
D. Danbury = 95 -19 = 76
E. Pittsburgh = 54 – 11 = 43

The answer is **CHOICE B**. If for some reason I had two answers that were particularly close, then I would have then calculated the exact differences, but as you can see, in this case it was not necessary, and it saved time for me to estimate.



15. In 1986 the median home price in Danbury was approximately how many times the median home price in Trenton?

A. 3
B. 2
C. $1^2/_3$
D. $1^1/_2$
E. $^1/_3$

EXPLANATION: Again, this is simply a matter of selecting the right chart (Chart #2), finding the relevant data, and reading carefully (we are comparing Danbury to Trenton). In 1986, the median home price in Danbury was $95,950, and the median home price in Trenton was $66,000. So, for the question "the median home price in Danbury was approximately how many times the median home price in Trenton?" we could substitute the actual values: "$95,950 is how many times $66,000?"

Translating from words to math (keeping in mind that "is" means equals and that "how many times" means "*x*"):

95,950 = 66,000*x* *divide both sides by 66,000 using your calculator*
x = 1.453

D = 1.5, so the correct answer is **CHOICE D** (notice that the question says "approximately," which means it's OK that your answer is not exact).

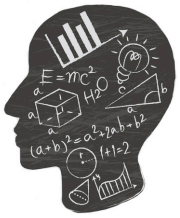
16. In 1986 in Newark, what was the approximate ratio of the median annual housing cost to the median homebuyer's annual income?

A. $^1/_7$
B. $^1/_6$
C. $^1/_4$
D. $^1/_3$
E. $^2/_5$

EXPLANATION: In 1986 Newark, the median **annual** (notice that the chart only provides a monthly amount) housing cost was ($1,139/month) x (12 months/year) = $13,668. In addition, the median homebuyer's annual income is $54,660 (provided).

The question is asking for the ratio of the 1st number to the 2nd number. Use the on-screen calculator. 13,668/54,660 = 0.2500. .25 = ¼ so the answer is **CHOICE C**.

You might have noticed that not a single one of these three questions referenced the top chart! Thus, don't assume that you will always need every chart provided on the GRE.



17. Which of the following is equal to $\frac{6^{14}}{(2^5)(3^7)}$?

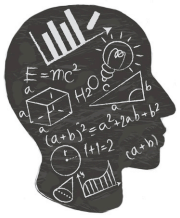
A. $(2^2)(3^2)$
B. $(2^7)(3^7)$
C. $(2^9)(3^2)$
D. $(2^9)(3^7)$
E. $(2^9)(3^9)$

EXPLANATION: This one's tricky. Whenever you see a problem like this (an exponential numerator above an exponential denominator), you can be sure that you're going to have to use your exponent tricks. The problem is, most exponent tricks involve operations with the same base, but the number 6 cannot be written as either "base 3" or "base 2" notation. However, since the prime factorial of 6 is (3 x 2), you can split 6^{14} into $(2^{14})(3^{14})$, otherwise known as the "same power trick" $(a^x)(b^x) = ab^x$.

$$\frac{6^{14}}{2^5 3^7} = \frac{2^{14} \cdot 3^{14}}{2^5 \cdot 3^7} = 2^{14-5} \cdot 3^{14-7} = 2^9 3^7$$

D

The answer is **CHOICE D**.



18. A certain train is traveling at a constant rate. If the train travels s miles in t hours, in how many hours will the train travel y miles?

A. $\frac{sy}{t}$

B. $\frac{st}{y}$

C. $\frac{ty}{s}$

D. $\frac{s}{ty}$

E. $\frac{s+y}{t}$

EXPLANATION: Don't get caught up in the algebra on a question like this, because it's too easy to make a mistake. Simply insert numbers into the variables from the answer choices, and make it true (make sure to choose numbers that make your calculations easier). And don't forget about the formula for distance: distance = (rate)(time) or $d = rt$.

The train travels s=100 miles in t=2 hours so the rate r = 50 miles/hour
Let's say that Y=200.

D = RT

200 = (50)(4) so the answer is 4. Now, plug your chosen numbers into the answers to see which outputs a value of 4.

CHOICE A. $\frac{sy}{t}$ = (100)(200) / 2 = 100. No

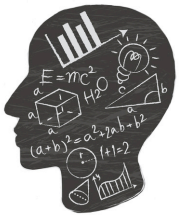
CHOICE B. $\frac{st}{y}$ = (100)(2) / 200 = 1. No

CHOICE C. $\frac{ty}{s}$ = (2)(200) / 100 = 4. Yes

CHOICE D. $\frac{s}{ty}$ = (100) / (200)(2) = ¼. No

CHOICE E. $\frac{s+y}{t}$ = (100 + 200) / 2 = 150. No

The answer is **CHOICE C**.



19. A certain experiment has three possible outcomes. The outcomes are mutually exclusive and have probabilities p, $p/2$, and $p/4$, respectively. What is the value of p ?

A. $1/7$
B. $2/7$
C. $3/7$
D. $4/7$
E. $5/7$

EXPLANATION: The concept here is that *the probabilities of all possible (mutually exclusive) outcomes must always add up to 1*. Another term for "mutually exclusive" is "non-overlapping." So, in other words, if we know that 35% of students are men, then we know that 65% of students must be female because one cannot be a male and female at the same time (at least as far as the GRE is concerned). However, if we know that 35% of students are men, and 30% of students have a B average or greater, then this does not necessarily add up to 65% of students because *some of the students with a B average or greater are also men.*

Once you understand that concept, this becomes a simple common denominator question:

$$\left[p + \frac{p}{2} + \frac{p}{4} = 1\right] \cdot 4$$

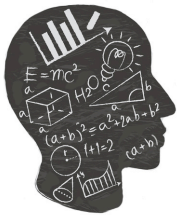
$$4p + 2p + p = 4$$

$$[7p = 4] \div 7$$

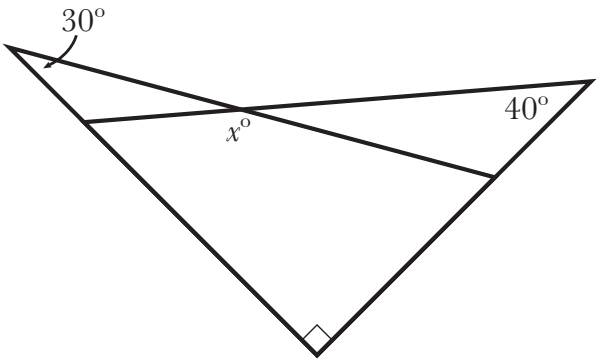
$$p = \frac{4}{7}$$

D

The answer is **CHOICE D**.

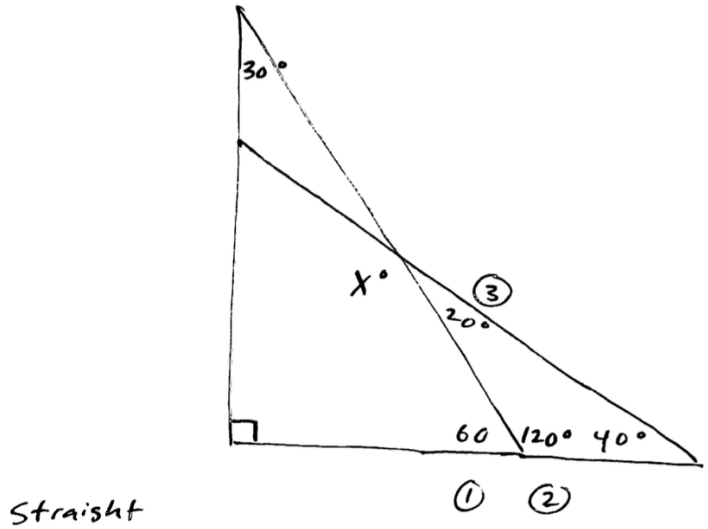


20.



In the figure shown, what is the value of x?

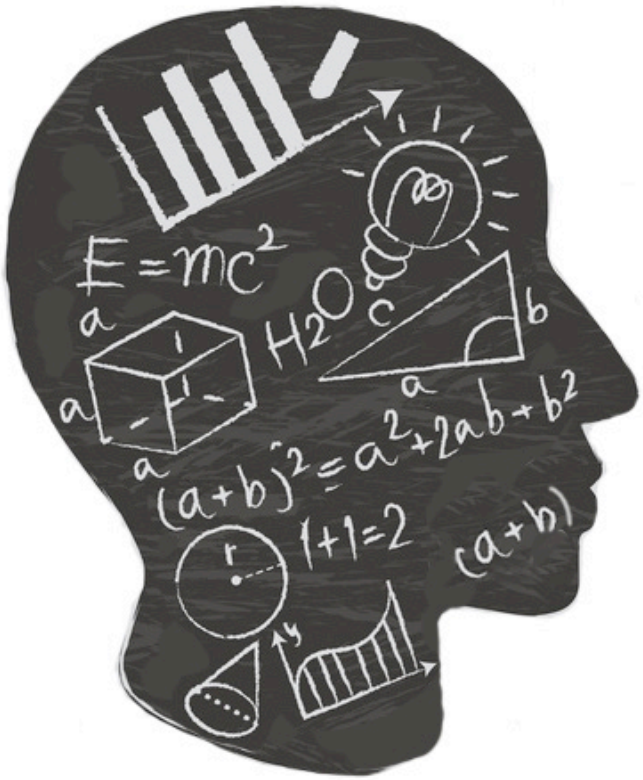
EXPLANATION: Remember that there are not only 180 degrees in a triangle, but 180 degrees in a straight line as well. See below (circled numbers represent the order of my additional conclusions):



Straight line = 180°

so X = 160°

The correct answer is **160** (degrees).

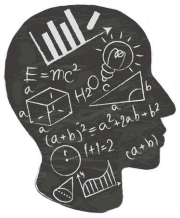


Powerprep Test 2

Quantitative

Easy Quantitative Reasoning

(0-9 correct on Section 3)



1. The length of each side of equilateral triangle T is 6 times the length of each side of equilateral triangle X.

Quantity A	Quantity B
The ratio of the length of one side of T to the length of another side of T	**The ratio of the length of one side of X to the length of another side of X**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

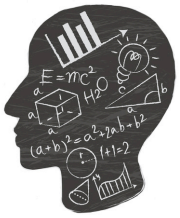
EXPLANATION: The concept here is a simple one: *the sides of equilateral triangles are, by definition, equal*. Because a number divided by itself is always equal to one, no matter the relative sizes of each triangle, the ratio for both Quantity A and Quantity B is 1:1, or 1, so the answer is **CHOICE C**. If you're still not sure, then pick values (such as 2/2/2 and 6/6/6) for the sides of each triangle, then test them. 2/2 = 1 and 6/6 = 1, which confirms your answer.

2. The function f is defined for all numbers x by $f(x) = |x + 3| + |x - 2|$.

Quantity A	Quantity B
$f(0)$	5

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: the expression $f(0)$ simply means that you have to replace the "x" in the equation with the number zero, and then solve the equation. Don't forget that the absolute value symbols (the vertical lines) mean that whatever is inside them becomes positive. Let's do so: $|x + 3| + |x - 2| = |0 + 3| + |0 - 2| = 3 + 2 = 5$. The answer is **CHOICE C**: both quantities are equal.



3. List **A**: 20, 56, 27, 16, 24, 40, 37, 52

List B (not shown) consists of 8 numbers, all of which are different from one another. Each number in list B was obtained by dividing one of the numbers in list A by 4 and then adding 5 to the resulting number.

Quantity A	Quantity B
The range of the numbers in list B.	**15**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: The range of a list of numbers is simply the highest term minus the lowest term, so part of your success on this question involves focusing on only those two numbers, which should speed up your calculations significantly.

Lowest number: 16. 16/4 = 4 and 4 + 5 = 9, so the number 16 in list A becomes the number 9 in list B.

Highest number: 56. 56/4 = 14 and 14 + 5 = 19, so the number 56 is list A becomes the number 19 in list B.

Now let's calculate the range of List B. High – Low = 19 – 9 = 10. 10 < 15, so the correct answer is **CHOICE B**: Quantity B is greater.

4. $x > y$

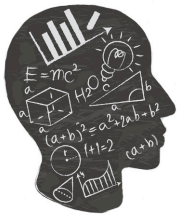
Quantity A	Quantity B
$\frac{1}{3}x$	$\frac{1}{2}y$

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Again, the easiest solution is to pick numbers and test them. If *x* is much larger than *y* (for example, *x*=99 and *y*=2), then Quantity A would clearly be greater, because 33 > 1. However, if the value of *x* were closer to that of *y* (for example, *x*=12 and *y*=10), then Quantity B would be greater because 4 < 5. Hence, the answer is **CHOICE D**.

Note: you could also use negative numbers, but why bother if positive numbers do the trick?

Try to keep your work as simple as possible.



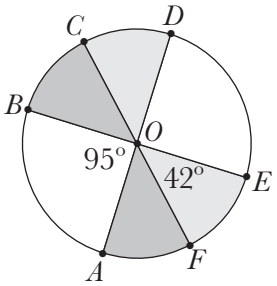
5. In the set of integers between 1 and 19, P is the set of multiples of 2, Q is the set of multiples of 3, and R is the set of multiples of 6.

Quantity A	Quantity B
The number of integers that are common to all three sets *P, Q,* and *R*	**3**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: We are given the integers 1 through 19, and asked to find the common integers in the list that are multiples of 2, 3, and 6. The easiest way to do so is to realize that because 2 times 3 equals 6 (2 times 3 is also known as the *prime factorization* of 6), **all multiples of 6 are also multiples of 2 and 3**. Thus, all really we need to do is find the number of multiples of 6 between 1 and 19: 6, 12, and 18 makes 3 integers total. 3 = 3, so **CHOICE C** is the answer.

6.



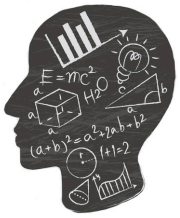
In the circle, line segments AD, BE, and CF all pass through center O.

Quantity A	Quantity B
The area of shaded sector *BOC*	**The area of shaded sector *AOF***

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: There is no way to calculate the precise area of the shaded sectors of these circles, because we do not know the size of the overall circle. However, if we can determine the angle measures of the shaded portions, then we can compare their respective areas, since it stands to reason that a shaded region with a larger angle measure (within the same circle) would have a larger area.

Angle AOF must be 43 because a straight line = 180. (180 – 95 – 42 = 43)
Angle COD must also be 43 because vertical angles are equal.
Angle BOC must be 42 for the same reason.
42 < 43 so the answer is **CHOICE B**.



7. In a certain graduating class, 80 percent of the students were accepted to college, but 10 percent of those accepted will *not* go to college.

Quantity A	Quantity B
The percent of the students in this class who were accepted to college and who will go to college	**70%**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

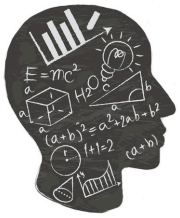
EXPLANATION: In a percent question, it's almost always a good idea to pick numbers, preferably multiples of 10 or 100, which are easy to calculate percents with.

So, let's say that there are 100 students graduating. Hence, 80 students would be accepted, and 20 students would NOT be accepted.

Then, the question tells us that 10 percent *of those accepted* will NOT go to college. Be careful; this is not a percent out of the original 100 — it is a percent of the 80 students that were accepted.

10 percent of 80 is 8, so that means that 8 students who were accepted did NOT go to college. Thus, 28 students total will NOT go to college, and the other 72 students will go to college.

72/100 = 72%, and 72% > 70%, so the answer is **CHOICE A**.



8. If $4x + 3 > -13$, which of the following could be the value of x?

A. -11
B. -9
C. -8
D. -5
E. -3

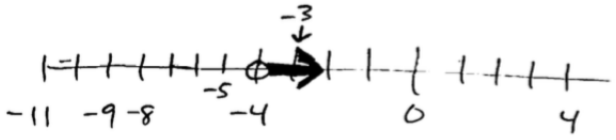
EXPLANATION: Remember that you can manipulate an inequality (something with greater or less than symbols) in the same way that you can an equation, with one important added rule: *if you multiply or divide both sides of the inequality by a negative number, then you have to flip the direction of the arrow*. This is not the case in this particular question, but it should be remembered for future questions. See visual below — the answer is **CHOICE E**.

$$[4x + 3 > -13] - 3$$

$$[4x > -16] \div 4$$

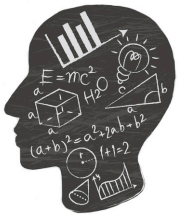
$$x > -4$$

THINK: NUMBER LINE.



Greater: to the RIGHT
Less: to the LEFT

Thus, x could be -3. [E]



9. List *S*: -25, -10, 0, 10, 25

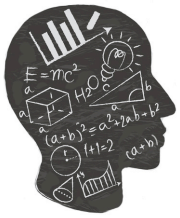
The numbers in which of the following lists have an average (arithmetic mean) that is equal to the average of the numbers in list *S*?

Indicate *all* such lists.

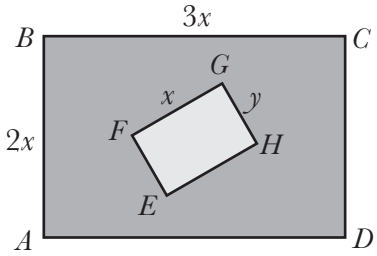
A. -10, -5, 0, 5, 10
B. -20, -10, 0, 10, 20
C. -25, -20, 0, 10, 25
D. -25, -5, 0, 5, 25

EXPLANATION: Average = Total / Number. Let's find the total first. –25 + –10 + 0 + 10 + 25 = 0, and zero divided by five is zero. Hence, look for the answers that also add up to zero.

The trick here is knowing that you don't have to bother adding them one at a time, because each positive number in the given list cancels out its negative counterpart. Look for the same in your answer choices. The answers are **CHOICES A, B, and D**.



10.



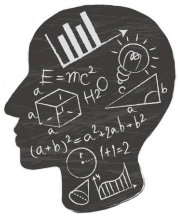
ABCD and EFGH are rectangles. What is the area of the shaded region?

A. $3x^2 - xy$
B. $4x^2 - xy$
C. $4x^2 - 2xy$
D. $6x^2 - xy$
E. $6x^2 - 2xy$

EXPLANATION: The concept here is a simple one: to get the area of a "shaded" figure, simply determine the area of the entire shape (area = length times width), then subtract the area that you don't want to include. In this case, I can take the area of *ABCD*, then subtract the area of *EFGH*.

Area ABCD = $(2x)(3x) = 6x^2$
Area EFGH = $(x)(y) = xy$

So the correct answer is **CHOICE D**, $6x^2 - xy$.



11.

DISTRIBUTION OF BLOOD TYPES IN A POPULATION

Blood Type	O	A	B	AB
Percent of the Population	45%	40%	11%	x%

The distribution of blood types within a certain population is shown in the table. What is the probability that a person chosen at random from the population will be a person who has blood type AB?

A. 0.04
B. 0.044
C. 0.4
D. 0.51
E. 0.56

EXPLANATION: This one is a matter of knowing the equation for probability, and understanding the concept that all percentages must add up to 100%. Probability = (# of outcomes you are looking for) / (total number of possible outcomes). Because 45 + 40 + 11 = 96%, this means that x must be equal to 4 (100 – 96 = 4).

(# people with AB blood type / total # of people) = 4 / 100 = .04 (use your calculator if you need to), so the answer is **CHOICE A**.

12. If $(a - b)\,c = 0$, which of the following CANNOT be true?

A. $a - b > 0$ and $c = 0$
B. $a = b$ and $c \neq 0$
C. $a = b$ and $c = 0$
D. $a \neq b$ and $c = 0$
E. $a \neq b$ and $c \neq 0$

EXPLANATION: The concept here is that if AB = 0, then either A = 0, or B = 0, or both.

Thus, either ($a - b$) or c must equal zero.

CHOICE A: OK, $c = 0$
CHOICE B: OK, $a = b$ so $a - b = 0$
CHOICE C: OK, $c = 0$
CHOICE D: OK, $c = 0$

If this were true, then there would be no way for ($a - b$) or c to be zero

The answer is **CHOICE E**.

13. Working at their respective constant rates, Machine I makes 240 copies in 8 minutes and Machine II makes 240 copies in 5 minutes. At these rates, how many more copies does Machine II make in 4 minutes than Machine I makes in 6 minutes?

A. 10
B. 12
C. 15
D. 20
E. 24

EXPLANATION: There are two ways to solve this question: you can either solve for each machine on a per-minute basis, then calculate the answer, or you can skip that step by making use of simple proportions (A1/B1) = (A2/B2).

Below are both methods:

Machine I

$$\frac{240 \text{ copies}}{8 \text{ min}} = \frac{30 \text{ copies}}{\text{min}} \times \frac{6 \text{ min}}{1} = 180 \text{ copies}$$

vs.

$192 - 180 = (12)$ [B]

Machine II

$$\frac{240 \text{ copies}}{5 \text{ min}} = \frac{48 \text{ copies}}{\text{min}} \times \frac{4 \text{ min}}{1} = 192 \text{ copies}$$

or

Machine I

$$\frac{240 \text{ copies}}{8 \text{ min}} = \frac{x \text{ copies}}{6 \text{ min}}$$

$8x = (240)(6)$

$8x = 1440$

$x = 180$

Machine II

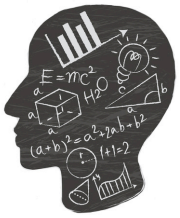
$$\frac{240 \text{ copies}}{5 \text{ min}} = \frac{x \text{ copies}}{4 \text{ min}}$$

$5x = 240(4)$

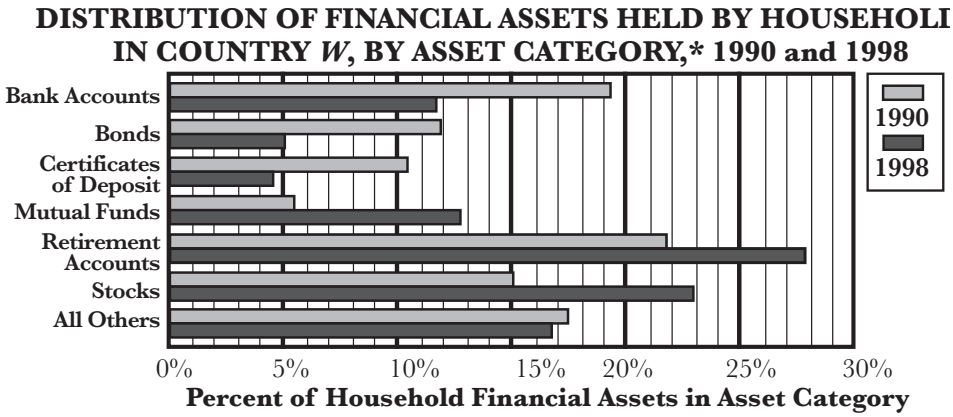
$5x = 960$

$x = 192$

$192 - 180 = (12)$ [B]



Questions 14-16 are based on the following data



*The graph shows six major asset categories. the last category, "All Others," indicates all financial assets not included in any of the six major categories

14. In 1998, if $\frac{2}{5}$ of the amount of household financial assets in bank accounts was in checking accounts, approximately what percent of all household financial assets was in checking accounts?

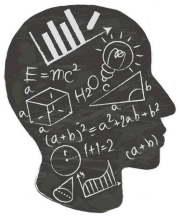
A. 5%
B. 10%
C. 15%
D. 20%
E. 25%

EXPLANATION: Before trying any graph or chart question, it is important to take a moment to try to analyze and comprehend the information conveyed in the graph. In this horizontal bar graph, we are given the percentage of financial assets (remember that all percents of the same group must add up to 100%) in Country *W*, by category, in 2 different years (1990 and 1998).

The first step is obvious: we are being asked about 1998, not 1990, so we must ignore the lighter bars in this graph. Next, we are told that $\frac{2}{5}$ of the amount in bank accounts was in checking accounts, so we must check the chart to see what percentage was in bank accounts (about 11.5%).

Remember that "of" means multiply, so $\frac{2}{5}$ of 11.5% is the same as ($\frac{2}{5}$) times (11.5/100). $\frac{2}{5}$ = .4 and (.4)(.115)= .046 = 4.6%. There is no answer that says 4.6%, but the question says "approximately," so you have the go-ahead to choose 5%, **CHOICE A**, as your answer.

On the basic GRE on-screen calculator, you can't do this all at once, so you will either have to have memorized that $\frac{2}{5}$ = .4, perform the division by hand, or enter it into the calculator separately.



15. In 1998, the amount of household assets in mutual funds was x million dollars. Which of the following is closest to the amount, in terms of x, of household financial assets in bonds that year?

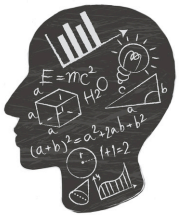
A. $^2/_5x$ million dollars
B. $^4/_7x$ million dollars
C. $^3/_5x$ million dollars
D. $^2/_3x$ million dollars
E. $^5/_2x$ million dollars

EXPLANATION: It's natural to begin a question like this one by attempting to solve for x, but there is no need to do so, and in fact, the value of x is impossible to solve for. The value of x cannot be determined from the chart because x is a numerical value, and the chart only indicates percentages. However, once you notice that x is also in all of the answer choices, you should realize that x doesn't matter.

We do know from the chart that in 1998, the amount of household assets in mutual funds was approximately 12.5%. We also know that the amount of assets in bonds was 5%. So the question is essentially asking us how to get from 12% to 5%. To get from 12 to 5, we must decrease by over 50% (you might calculate the percent change on your calculator, as 100 x (difference / original) = 100 (12-5) / 12 = 100 (7/12) = 58.3%.

The answer can be determined through estimation. A 58.3% decrease is a close to 60% decrease. *Decreasing by 60% is the same as multiplying by 40%.* Because 2/5 = 40%, **CHOICE A** is the answer.

CHOICE B: $^4/_7$ = 58% (obviously a decoy answer)
CHOICE C: $^3/_5$ = 60%
CHOICE D: $^2/_3$ = 66.6%
CHOICE E: $^5/_2$ = 250%



16. Of the amount of household financial assets in the six major asset categories in 1990, approximately what fraction was in bank accounts?

A. $1/7$
B. $1/6$
C. $1/4$
D. $1/3$
E. $1/2$

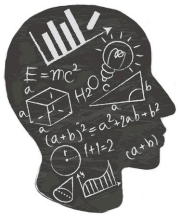
EXPLANATION: By glancing at the chart, we can tell that Bank Accounts made up approximately 19% of All Household Financial Assets. However, we must read the bottom of the chart carefully: this is a trick question in some ways, because the 19% figure includes all categories, not the six major asset categories. Thus, we must first subtract the 17% "All Others" category from the original 100% to get 83%. So in reality, the fraction we are looking for is the one closest to "19 out of 83," not "19 out of 100." "Out of" = divide.

Calculator: 19 / 83 = .229

Test the answers with the calculator by dividing the numerator by the denominator, or rely upon your previous memorization of common fractions vs. their decimal equivalents.

CHOICE A: 1/7 = .143
CHOICE B: 1/6 = .166
CHOICE C: 1/4 = .25 (correct since it's the closest answer and the question says "approximately."
CHOICE D: 1/3 = .33
CHOICE E: 1/2 = .5

The answer is **CHOICE C**.



17. If $7x = 5y + 66$ and $y = -3x$, what is the value of x?

A. 1
B. 3
C. 5
D. 7
E. 9

EXPLANATION: Classify this one under "simple substitution." Simply substitute $-3x$ for y into the original equation, in order to reduce the question to one variable, x:

$7x = 5(-3x) + 66$
$7x = -15x + 66$
$22x = 66$
$x = 3$

The answer is **CHOICE B**.

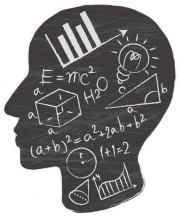
18. Joan bought a calculator at a discounted price that was 30 percent less than the original price. If the discounted price of the calculator was \$105, what was the original price?

A. \$75
B. \$120
C. \$135
D. \$150
E. \$195

EXPLANATION: Since everything must add up to 100%, another way to think of "30% less than x" is as "70% of x."

DP = Original (.7)
105 = (Original)(.7)
105 / .7 = Original = 150

The answer is **CHOICE D**.



19. If $|x + 3| = 12$ and x is a multiple of 5, what is the value of x?

EXPLANATION: The trick here is realizing that because this question involves absolute value, there will always be 2 solutions: one positive and one negative. The positive solution is 9 (which outputs positive 12), but you have to ask yourself, "how could I output *negative* 12?"

$x + 3 = -12$
***x* = –15**

20. Water started leaking from a tank yesterday at 12:00 noon at a constant rate of 0.5 ounce per second and continued leaking at this rate until the tank was empty. If the tank was empty before 8:00 yesterday evening, which of the following could have been the amount of water in the tank, in ounces, yesterday at 12:00 noon?

    Indicate *all* such amounts.

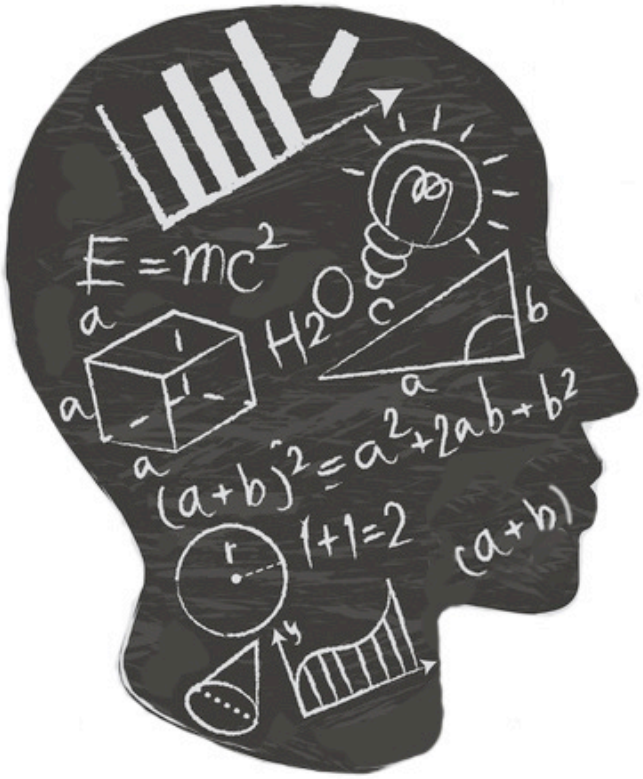
    A. 1,280
    B. 6,480
    C. 10,240
    D. 12,800
    E. 15,360

EXPLANATION: When tackling word problems such as these, it's important to take a step back and consider the concepts at play. If a tank starts leaking at noon, and we arrive at 8 pm to see that the tank is empty, then it stands to reason that there is no lower limit on the amount of water that could have been in the tank, only an upper limit that is determined by the rate of the leak.

Next, we must calculate the number of seconds in 8 hours. (8 hrs) x (60 min/hr) x (60 sec/min) = 28,800 seconds. If we lose .5 ounces per second and we multiply that by 28,800 seconds, then the seconds will cancel out and we will be left with 14,400 ounces. Hence, there could have been **up to 14,400 ounces** in the tank, eliminating answer Choice E but making the rest of the choices possible.

The answer is **CHOICES A,B,C,D**.

| **NOTES**

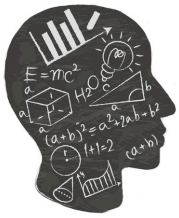


Powerprep Test 2

Quantitative

Medium Quantitative Reasoning

(10-14 correct on Section 3)



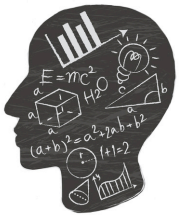
1. The number 0 is between the two nonzero numbers r and t on the number line.

Quantity A	Quantity B
The product of r and t	**0**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: The concept here is that if zero lies between two numbers, then one must be positive and the other, negative. There is no need to memorize this concept, however—you can simply make it true and observe. Thus, the product of r and t will be negative, because a negative times a positive is always negative—which *is* something you should memorize.

All negative numbers are less than zero; hence the answer is **CHOICE B**.

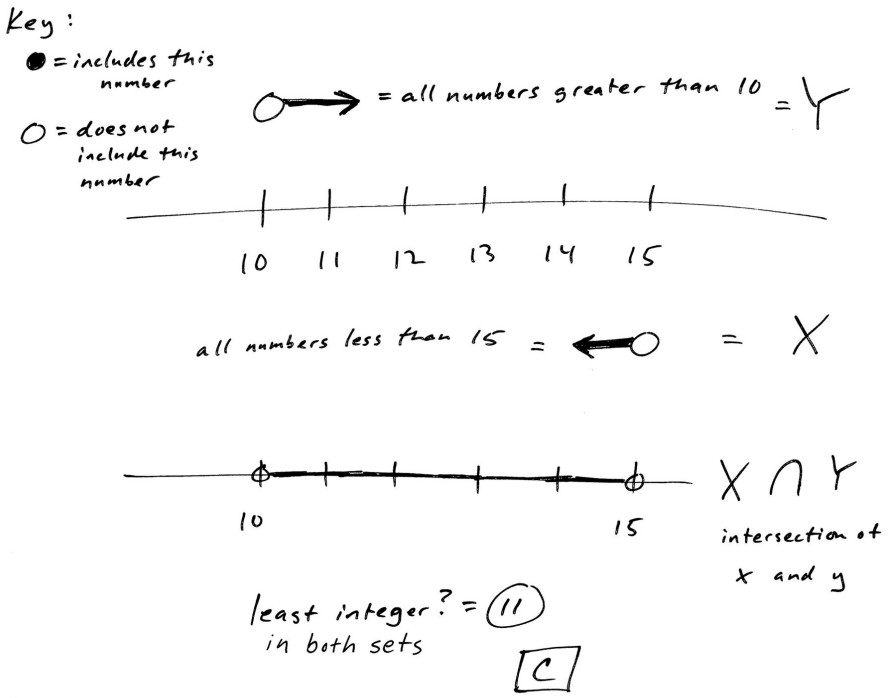


2. X is the set of all integers less than 15.
Y is the set of all integers greater than 10.

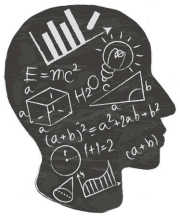
Quantity A	Quantity B
The least integer in set X that is also in set Y	**11**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Sets X and Y, as presented, are self-explanatory. It's Quantity A that's a little bit confusing. To make it easier, draw a number line:



It becomes clear that the least integer that fulfills both qualities is the integer 11. Hence, the answer is **CHOICE C**.



3. 4 percent of s is equal to 3 percent of t, where $s > 0$ and $t > 0$.

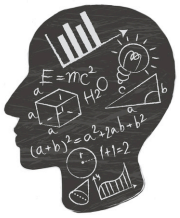
Quantity A	Quantity B
s	t

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: You might be tempted to plug in for this question, but we would suggest starting with algebra first: it's more elegant and could possibly lead to an easier solution.

$.04s = .03t$
both numbers positive!
Divide both sides by .04 to solve for s, and/or divide both sides by .03 to solve for t.
$s = 0.75t$
$t = 1.33s$

Hence, the answer is **CHOICE B**.



4. T is a list of 100 different numbers that are greater than 0 and less than 50. The number x is greater than 60 percent of the numbers in T, and the number y is greater than 40 percent of the numbers in T.

Quantity A	Quantity B
$x - y$	20

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: This one is very theoretical, and requires testing of numbers. First, let's think this through conceptually: If there are 100 different numbers between 0 and 50, then there must be some decimal numbers involved, like 10.2 or 10.5. Second, we have no idea what the distribution of these numbers is — they could be evenly distributed, concentrated at the beginning, or concentrated at the end.

For example, you could have the numbers 0.1 through 10.0, separated by increments of .1 (even distribution on the low end), which would result in an answer of B, because even the largest possible difference of terms (10 – .1 = 9.9) would still be less than 20. The actual calculation, however would be 6.1 (greater than 60 percent of the numbers) minus 4.1 (greater than 40 percent of the numbers), which equals 2, and of course is also less than 20.

You could also have an uneven distribution, with 40 numbers less than 10, and 60 numbers greater than 40, in which case the answer would be Choice A.

Any time that we are able to make more than one answer choice work out of the choices A, B, and C, we know that the correct answer must be ***CHOICE D****.*

5. $x > y$

Quantity A	Quantity B
$\lvert x + y \rvert$	$\lvert x - y \rvert$

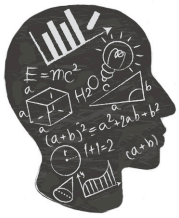
A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

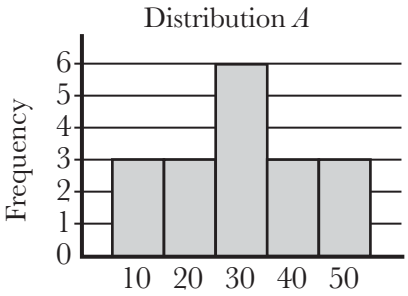
EXPLANATION: Any time absolute value is involved, it makes sense to try both positive and negative numbers.

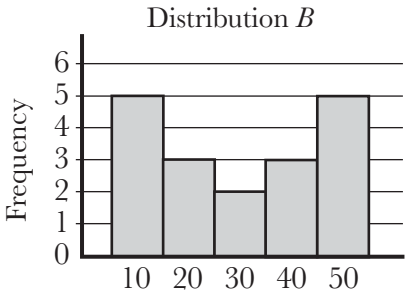
First, let's get the ball rolling by picking some easy, positive values for x and y. When x and y are positive ($x = 3$ and $y = 2$, for example), then Quantity A = 5 and Quantity B = 1, so the answer would be Choice A in that scenario ($5 > 1$).

Now, let's try making one of the numbers negative, such as $x = 3$ and $y = -2$. In that case, Quantity A = 1 and Quantity B = 5. The answer would be Choice B in this scenario ($1 < 5$).

Finding scenarios for both Choices A and B means that the answer must be **CHOICE D**.







6. The frequency distributions shown above represent two groups of data. Each of the data values is a multiple of 10.

Quantity A	**Quantity B**
The standard deviation of distribution A	**The standard deviation of distribution B**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

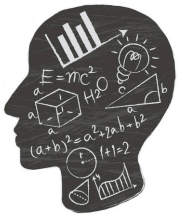
EXPLANATION: Calculating standard deviation is a tricky task; one that is not required on the GRE. If you want to know how to do so anyway, then check out this article on Standard Deviation from McElroy Tutoring (http://www.mcelroytutoring.com/blog-post.php?id=4099)

However, we must understand the concept of standard deviation. Standard deviation is a measure of spacing ("dispersion") from the average term. Thus, the further away the terms in a list are from the average term, the higher the standard deviation.

You will notice that 6 of the 18 terms in distribution A are exactly equal to the average term, which is 30. If most of the terms are close to the average, then the SD is smaller.

You will also notice that only 2 of the 18 terms in distribution B are exactly equal to the average term, which is also 30. If most of the terms in a list are far from the average, then the SD is larger.

Since A < B, the answer is **CHOICE B**.



7. A right circular cylinder with radius 2 inches has volume 15 cubic inches.

Quantity A	Quantity B
The height of the cylinder	**2 inches**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: The GRE requires you to memorize the formula for the area of a cylinder, *Volume of a Right Circular Cylinder* = $\pi r^2 h = \pi 2^2 h = 15$. Divide both sides of the equation by 4π to get $h = 15/4\pi$, which is about 15/12. (15/12) = 1.25, and $1.25 < 2$, so the answer is **CHOICE B**.

8. A bush will be dug up and then planted again at a new location 15 feet east and 20 feet south of its present location. After it is replanted, approximately how far, in feet, will the bush be from its present location?

A. 22
B. 25
C. 28
D. 30
E. 35

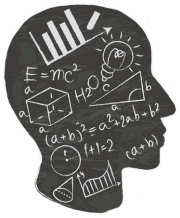
EXPLANATION: This question is testing your knowledge of the Pythagorean Theorem for determining the third side, c, of a right triangle, $a^2 + b^2 = c^2$.

$15^2 + 20^2 = 225 + 400 = 625 = c2$. $c = 25$ Take the root of both sides, but note that the GRE calculator does not have a root button, so will probably have to try the answers a.k.a. backsolve.

9. If $3x + 5{,}000 = 6x + 10{,}000$, what is the value of x?

Give your answer as a fraction.

EXPLANATION: Well, this is just standard-issue algebra, folks. Remember that we can manipulate an equation by performing the same operation to both sides. To isolate x, first subtract $3x$ from both sides of the equation to get $5{,}000 = 3x + 10{,}000$, then subtract 5000 from both sides to get $-5000 = 3x$. Finally, divide both sides by 3 to get $x =$ **-5000/3**.



10. Steve's property tax is $140 less than Patricia's property tax. If Steve's property tax is $1,960, then Steve's property tax is what percent less than Patricia's property tax, to the nearest 0.1 percent?

A. 6.7%
B. 7.1%
C. 7.5%
D. 7.9%
E. 8.3%

EXPLANATION: S = P - 140. Careful: do not write this as 140 - P. Now we must use the formula for PERCENT CHANGE = difference/original x 100 or (first-last)/first x 100.

10] $S = P - 140$

$[1{,}960 = P - 140] + 140$

$2{,}100 = P$

$1{,}960 = S$

"than" = original

S is what percent less than P ?

$$\%\ \text{change} = \left(\frac{\text{difference}}{\text{original}}\right) \times 100$$

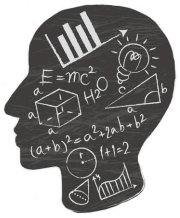
$$= \left(\frac{2100 - 1960}{2100}\right) \times 100$$

$$= \left(\frac{140}{2100}\right) \times 100$$

$$= \left(\frac{2}{30}\right) \times 100 = 6.66\ \%$$

A

The answer is **CHOICE A**.

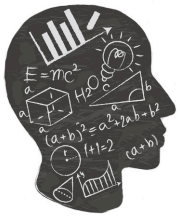


11. Chris entered a number in his calculator and erroneously multiplied the number by 2,073 instead of 2.073, getting an incorrect product. Which of the following is a single operation that Chris could perform on his calculator to correct the error?

    Indicate *all* such operations.

    A. Multiply the incorrect product by 0.001
    B. Divide the incorrect product by 0.001
    C. Multiply the incorrect product by 1,000
    D. Divide the incorrect product by 1,000

EXPLANATION: The "factor of difference" between 2,073 and 2.073 is 1000, because 2073/2.073 = 1000. Now, we use some common sense: we multiplied by a much larger number than we should have. Thus, we must adjust the answer by a factor of 1000 in the *smaller direction*. Since answer Choices B and D would both move the answers in the *larger direction*, the answers are **CHOICES A and D**. If you're having trouble understanding Choice A, then remember that multiplying by .001 (1/1000 in fractional terms) is the exact same operation as dividing by 1000.



12. A base of a triangle has length b, the altitude corresponding to the base has length h, and $b = 2h$. Which of the following expresses the area of the triangle, in terms of h?

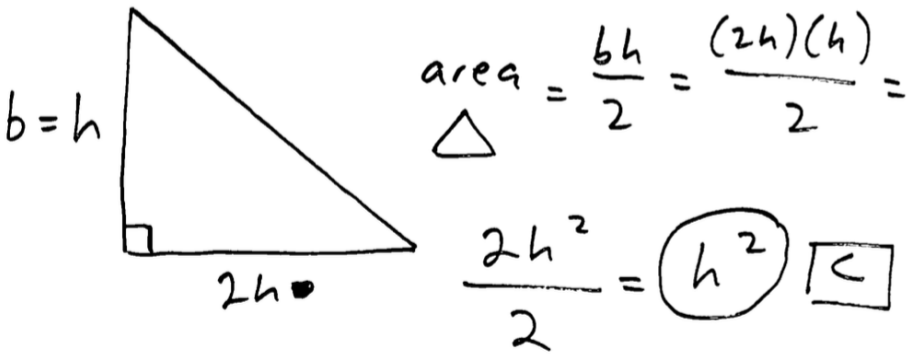
A. $\frac{1}{2}\, h^2$
B. $\frac{3}{4}\, h^2$
C. h^2
D. $\frac{3}{2}\, h^2$
E. $2\, h^2$

EXPLANATION: Any time the GRE describes a shape, but does not provide a visual, you should of course draw a visual of your own if you have time, using your provided pencil and scrap paper. Don't be overconfident and try to do such a question in your head if you don't have to! It will work sometimes, but it's risky.

In fact, it's a good idea to create a visual even if the question provides one; after all, you can't draw on the screen, and forcing yourself to first sketch it out helps you to process the visual information more effectively. This is true even when the visual is not necessary to solve the question, because it can still help prevent careless mistakes.

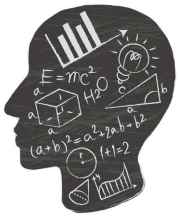
Speaking of careless mistakes, did you notice that ETS has decided to call the length of the triangle by the variable "*b*," which implies base, not height? That's just cruel and unusual. The test makers are obviously trying to fool you there, which, not to be a nag, is yet another reason to create an illustration of your own, however quick and crude it may be.

So alright, let's draw it:

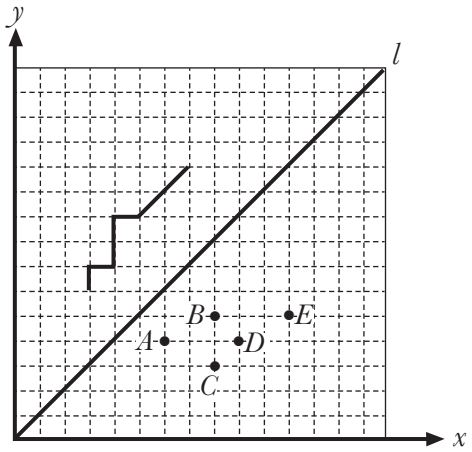


You'll notice that I drew a simple right triangle, because why not? The question didn't say what type of triangle it was, so it's a good idea to keep it as simple as possible.

Recall that the formula for area of a triangle is **(base x height) / 2**. Thus (see algebra above), the answer is **CHOICE C**.



13.



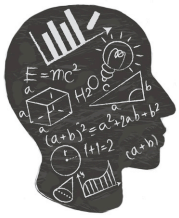
In the *xy*-plane above, if the graph above line *l* is reflected across line *l*, through which of the following points does the reflected graph pass?

A. A
B. B
C. C
D. D
E. E

EXPLANATION: If you understand the concept, then this one's pretty easy. One way to think of it is that line *l* is actually the line $y = x$, which means that if we are reflecting a point over the line $y = x$, then the *x* and *y* coordinates of the point should be trading places.

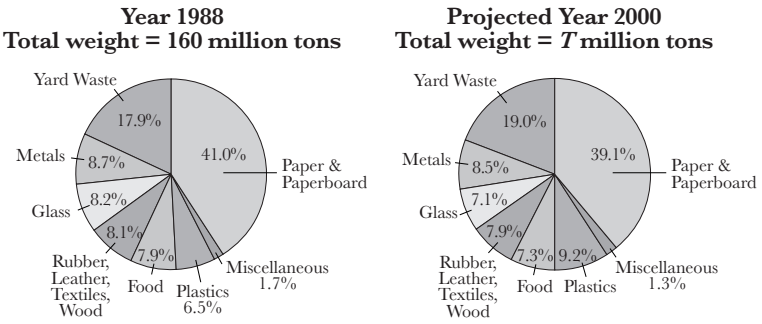
CHOICE A: Is the point (6,4), but the point (4,6) is not in the graph above line *l*.
CHOICE B: Is the point (8,5), but the point (5,8) is not in the graph above line *l*.
CHOICE C: Is the point (8,3), but the point (3,8) is not in the graph above line *l*.
CHOICE D: CORRECT. D is the point (9,4) and the point (4,9) IS in the graph above line *l*.
CHOICE E: Is the point (11,5), but the point (5,11) is not in the graph above line *l*.

Alternatively, you could measure how far each point is from the line $y = x$ by drawing diagonal, perpendicular lines toward the line $y = x$, and seeing how far you must travel (2 "boxes," 2.5 boxes, etc.). If you must travel the same distance to reach the graph above line *l*, then it is a true reflection. You will notice that this is true for D (2.5 boxes on each side of the line $y = x$, but none of the other answers.



Questions 14-16 are based on the following data

SOURCES OF SOLID WASTE, BY WEIGHT, IN THE UNITED STATES



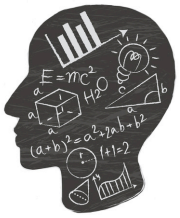
This data was compiled prior to year 2000

14. In 1988 for how many of the eight categories shown was the weight of the solid waste less than 8 million tons?

A. None
B. One
C. Two
D. Three
E. Four

EXPLANATION: Part of your success on this question will be determined by how efficiently you solve for the answer. Instead of calculating each individual percentage using the table above, you would be much better served to simply determine what percent of 160 million is 8 million. Percent = (part/whole) x 100, (8/160) x 100, (1/20) x 100 = 5 percent. So if 8 million tons is 5 percent of 160. Thus, if we are trying to determine how many of the categories were less than 8 million tons, then we can simply look for the number of percents that are less than 5. That would be "Miscellaneous" only (1.7%), which means that **CHOICE B** is the answer.

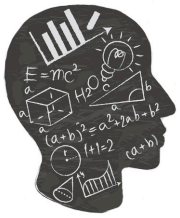
You could solve this question even more quickly by doing the math in your head. Percents can be easily calculated using either 1 percent, 10 percent or 100 percent as a comparison point. For example, 10 percent of 160 is 16 (just remove a zero), so it stands to logic that if 10 percent is 16, then 5 percent is 8.



15. For 1988, how many of the eight categories of solid waste had a weight that exceeded the average (arithmetic mean) weight for all eight categories?

    A. One
    B. Two
    C. Three
    D. Four
    E. Five

EXPLANATION: This question also rewards your ability to "check the cut-off point" and to do percentages quickly in your head. It also incorporates the equation for average, obviously. Average = total / number = 160/8 = 20. Thus, the average weight for all 8 categories is 20. Next, we need a comparison point to see what percentage of 20 is 8. Percent = (part/whole) x 100. (20/160) = 1/8 = use your calculator = .125 (100) = 12.5 percent. Thus, we are simply looking for the number of categories whose percentage is above 12.5, which describes only two categories: "Yard Waste" (17.9%) and "Paper and Paperboard" (41%), so the answer is **CHOICE B**.



16. In 1988, if 10 percent of glass waste and 50 percent of paper and paperboard waste were recycled and no other waste was recycled, approximately what percent of the solid waste listed was recycled?

A. 15%
B. 20%
C. 35%
D. 50%
E. 60%

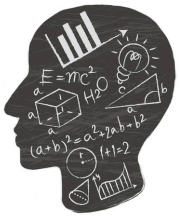
EXPLANATION: You can typically expect the final question in a series of questions relating to a graph to be the most difficult of the series. Here, you have to take a percent of a percent of a number, twice, and then sum the two values together, and then perform a percent calculation. Remember that "of" means "multiply."

10 percent of glass waste = 10% of 8.2% of 160 million = (.1)(.082)(160 million) = 1.312 million. (Note that I did not put the entire number 160,000,000 into my GRE calculator, because it will not hold more than 8 digits. Also, make sure not to put 8.2% as .82, which is a common mistake.)

50 percent of paper and paperboard waste = 50% of 41% of 160 million = (.5)(.41)(160 million) = 32.8 million.

Now, sum them up on your calculator. Notice that the question says "approximately," so it's OK to round some of our numbers for ease of calculation. 1.3 million + 32.8 million = 34.1 million.

Our final step is to determine what percent of 160 million is 34.1 million. Percent = (part/whole) x 100 = (34.1/160) x 100 = .21 x 100 = 21%, so the answer is **CHOICE B**.



17. Each month, a certain manufacturing company's total expenses are equal to a fixed monthly expense plus a variable expense that is directly proportional to the number of units produced by the company during that month. If the company's total expenses for a month in which it produces 20,000 units are $570,000, and the total expenses for a month in which it produces 25,000 units are $705,000, what is the company's fixed monthly expense?

A. $27,000
B. $30,000
C. $67,500
D. $109,800
E. $135,000

EXPLANATION: Let's start off by defining the concept of direct proportion. When I say that *x* is directly proportional to *y*, that means that I can use the equation $y = kx$, where k represents a constant. Thus, direct proportion basically involves multiplying the 1st element, *x*, by a fixed amount to determine the 2nd element, *y*.

So with regard to this particular question, since the variable expense is directly proportional to the number of units produced, we must be multiplying that variable expense by the number of units produced.

See math below. Notice how when you have two equations with two variables, you can either add or subtract the equations from each other in an attempt to eliminate a variable, which allows you to solve for the other variable.

$$F + v(\#) = \text{total}$$

$$F + v(20{,}000) = 570{,}000$$

Subtract:

$$F + v(25{,}000) = 705{,}000$$

$$[5{,}000v = 135{,}000] \div 5{,}000$$

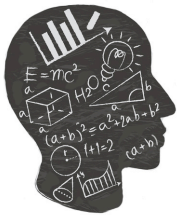
$$v = 27$$

$$F + 27(20{,}000) = 570{,}000$$

$$[F + 540{,}000 = 570{,}000] - 54{,}000$$

$$F = 30{,}000 \quad \boxed{B}$$

The answer is **CHOICE B**.



18. Which of the following lines are perpendicular to the line $y = x$ in the xy-plane?

Indicate *all* such lines.

A. $x = 0$
B. $y = -1$
C. $x + y = 0$
D. $x + y = 1$
E. $x - y = 2$

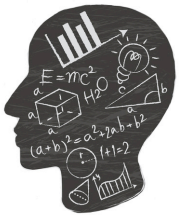
EXPLANATION: The GRE requires you to know the point-slope form of the equation of a line: $y = mx + b$. Remember that m = slope = rise/run, and that b represents the y-intercept.

Thus, the slope of this equation is 1, since $mx = x$. (Divide both sides by x.) The GRE also requires you to know the relationship between slopes of perpendicular lines: **perpendicular lines have negative reciprocal slopes.** "Negative reciprocal" means that you take the number, flip the numerator and the denominator, and multiply it by negative 1. So the negative reciprocal of ¾ is -⅔, for example, or the negative reciprocal of -4 is ¼.

The negative reciprocal of 1 is –1, so we are looking for any equation with a slope of -1. Put the equation into $y = mx + b$ format and solve for b to find the slope.

CHOICE A: No slope (undefined)
CHOICE B: No x term
CHOICE C: $y = -x$ YES, $m = -1$
CHOICE D: $y = -x + 1$ YES, $m = -1$
CHOICE E: $y = x - 2$ NO, $m = 1$

The answers are **CHOICES C and D**.



19. The hundreds digit of the five-digit number 73,_95 is missing. If the hundreds digit is to be randomly selected from the ten digits from 0 to 9, what is the probability that the resulting five-digit number will be a multiple of 3?

A. 0
B. $^1/_{10}$
C. $^3/_{10}$
D. $^2/_5$
E. $^1/_2$

EXPLANATION: The equation for probability is (# of outcomes desired / # of total outcomes). Since the numbers 0-9 make up 10 digits total, we know that our denominator will be 10.

Next, we must determine the numerator: the number of these five-digit numbers that will be divisible by 3. For this, we can either use the on-screen calculator, or use the rule for division by 3 (if the sum of the digits in a number add up to a multiple of 3, then that number is divisible by 3.

73,095 / 3 = 24,365 YES. Now we can simply understand that each time we add 3, it will create a new multiple of 3. So the numbers that work are:

CHOICE A: 73,095
CHOICE B: 73,395
CHOICE C: 73,695
CHOICE D: 73,995

That makes 4 out of 10, or $^2/_5$. The answer is **CHOICE D**.

20. How many ordered pairs of positive integers (x, y) satisfy the inequality $2x + 3y < 10$?

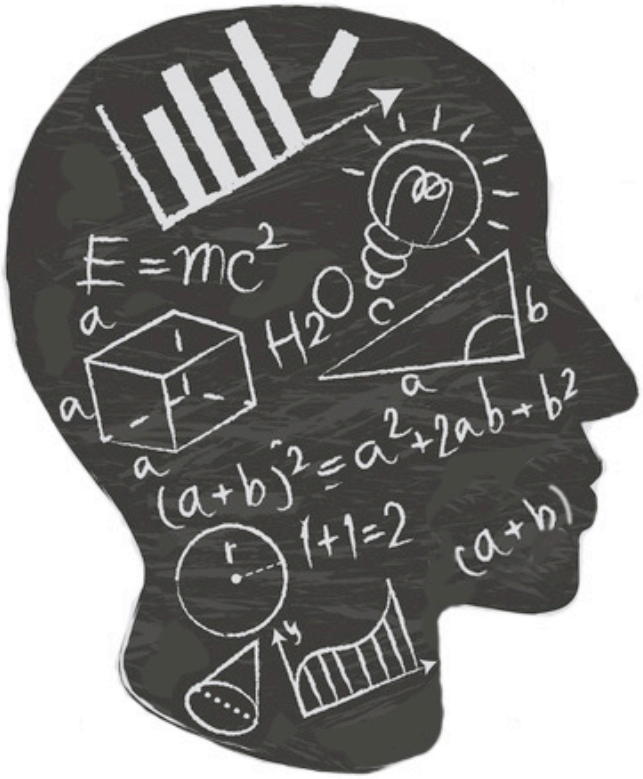
A. One
B. Two
C. Three
D. Four
E. Five

EXPLANATION: The first, and perhaps most important, detail of this question is that *zero is neither a negative nor a positive number*. Once we understand that, we can try out all the possibilities. Obviously, x and y will have to stay rather small in order for this inequality to work, so we just keep going until the values are too high. Also, remember that values such as (1,2) and (2,1) are two different ordered pairs.

Test (1,1). Is 2(1) + 3(1) < 10 ? 5 < 10, so YES.
Test (1,2). Is 2(1) + 3(2) < 10 ? 8 < 10, so YES.
Test (2,1). Is 2(2) + 3(1) < 10 ? 7 < 10, so YES.
Test (2,2). Is 2(2) + 3(2) < 10 ? 10 is not < 10, so NO.

The answer is **CHOICE C**—there are three ordered pairs of positive integers that satisfy the provided inequality.

| **NOTES**

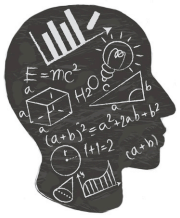


Powerprep Test 2

Quantitative

Hard Quantitative Reasoning

(15-20 correct on Section 3)



1. In City *X*, the range of the daily low temperatures during June 2012 was 20 degrees Fahrenheit, and the range of the daily low temperatures during July 2012 was 25 degrees Fahrenheit.

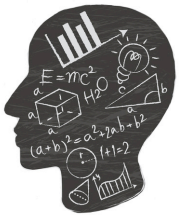
Quantity A	Quantity B
The range of the daily low temperatures in City *X* for the two-month period from June 1, 2012, through July 31, 2012	**30 degrees Fahrenheit**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: We are provided with the range of daily low temperatures for June and July separately, but are not given any actual values. We are then asked to compare the range of daily low temperatures for both months, to the fixed value of 30 degrees Fahrenheit. Thus, we must consider two possibilities: that the ranges overlap completely, helping us determine the minimum value of Quantity A, or that the ranges do not overlap at all, helping us determine the maximum value of Quantity A (or, for our purposes, simply a value *greater than* 30 degrees).

First, let's try to make A > B. That should be pretty easy. If in June, daily low temperatures went from 0 to 20 degrees, and in July, daily low temperatures went from 20 to 45 degrees (hey, nobody said the numbers you pick have to be realistic!), then the total range would be 45 degrees, which is clearly *greater than* 30 degrees. Hence, in this case, Choice A is true.

Next, let's try to make A < B. Not too hard either, if you consider the concept of complete/partial overlap of ranges. If in June, daily low temperatures went from 0 to 20 degrees, and in July, daily low temperatures went from 0 to 25 then the total range would be 25 degrees, which is clearly *less than* 30 degrees. Hence, in this case, Choice B is true. If we can make both A and B work, then the answer is **CHOICE D**.



2. For all positive numbers p, the operation ▼ is defined by $p^{\blacktriangledown} = p + \frac{1}{p}$

Quantity A	Quantity B
$\left(\left(\frac{2}{7}\right)^{\blacktriangledown}\right)^{\blacktriangledown}$	**3.5**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Don't worry, the "upside down triangle power" is not an actual math expression that you are supposed to know. It's basically an input/output game, or a disguised function. To solve, simply write down the definition of the function, then insert the numbers one at a time. Then use common denominator to add your fractions (see below). The answer is **CHOICE A**.

#2 $p^{\blacktriangledown} = p + \frac{1}{p}$

$\left(\frac{2}{7}\right)^{\blacktriangledown} = \frac{2}{7} + \frac{7}{2} = \frac{7}{14} + \frac{49}{14} = \frac{56}{14}$

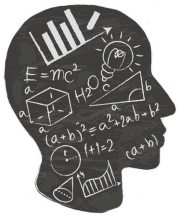
$\left(\frac{56}{14}\right)^{\blacktriangledown} = \frac{56}{14} + \frac{14}{56} = \frac{224}{56} + \frac{14}{56} = \frac{238}{56} =$ [illegible]

4.25

A

$14 \times 4 = 56$ $\quad 56 \times 4 = 224$

$224 + 14 = 238$



3. $x > 0$ and $x^4 = 625$

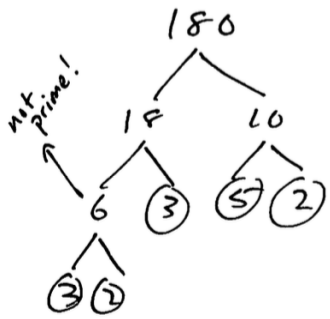
Quantity A	Quantity B
The greatest prime factor of $36x$	x

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

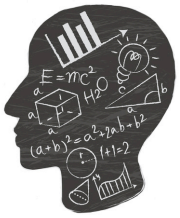
EXPLANATION: First, the bad news: remember that there is no option on the GRE calculator to take a number to a power. Instead, you will have to do it the old-fashioned way. Now, the good news: you would be surprised how small *x* really is. When you take something to the power of 4, it gets big really quickly, so if you simply test a few small numbers, then you should be able to find the answer. 2^4 is 32, and 3^4 is 81, so those are too small, but 4^4 (or 4 x 4 x 4 x 4 on the on-screen calculator) is 256. Getting closer. 5 x 5 x 5 x 5 = 625! Ding ding, we have a winner. So *x* equals 5.

Next, we must find the greatest prime factor of 36*x*, which we now know to be 36 x 5 = 180.

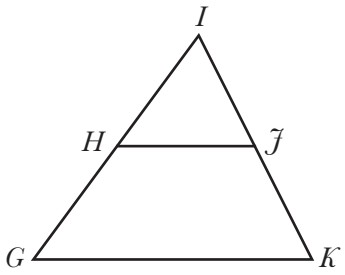
Now, let's draw a factor tree for 180, in order to determine its "greatest prime factor," in other words, the largest prime number that fits evenly into 180.



We can see from this factor tree that 180 = 2 x 2 x 3 x 3 x 5. Hence, the greatest prime factor of 180 is 5. Since *x* is also equal to 5, the answer is **CHOICE C**.



4.

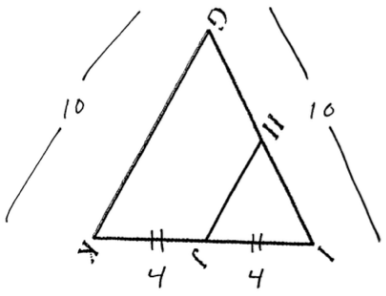


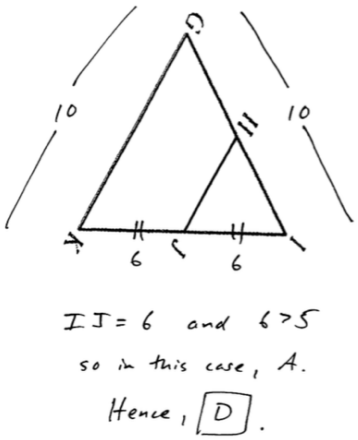
H is the midpoint of IG.
J is the midpoint of IK.
$IG = GK = 10$.

Quantity A	Quantity B
IJ	**5**

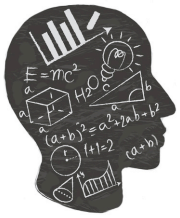
A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: *Remember that on GRE geometry problems, drawings are not necessarily drawn to scale*. If $IG = GK$, then that means that the larger triangle is an isosceles triangle, because two of its sides are equal. However, part of what makes this question difficult is that this particular isosceles triangle is not aligned in the way that we are used to seeing an isosceles triangle—in other words, it's easier to comprehend if we rotate the triangle one-third to the right (and then re-draw it with that orientation on our scrap paper). If we do so, then you will notice that the length of IJ, which is now ½ of the bottom side of the triangle, can either be less than 5 (a 10/10/3 triangle where $IJ = 1.5$), or greater than 5 (a 10/10/12 triangle where $IJ = 6$.





The answer is **CHOICE D**.



5. n is an integer, and $n^2 < 39$

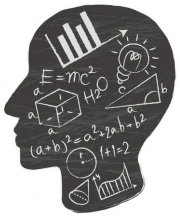
Quantity A	Quantity B
The greatest possible value of *n* minus the least possible value of *n*	**12**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

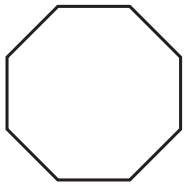
EXPLANATION: We must recognize that when a number *n* is squared and equals a positive number, then we have no way of knowing whether n was positive or negative. Hence, we must consider negative values as well.

First, let's determine the *greatest* possible value of n. 6^2 = 36, and 36 < 39, but 7^2 = 49, so 6 is the largest positive value of *x*. (This is unlike when we are asked for the square root of a number, which by definition is the positive answer only.)

Likewise, the *least* possible value of *x* is -6. So the greatest minus the smallest is 6 – (-6) = 12. Hence, **CHOICE C** is correct.



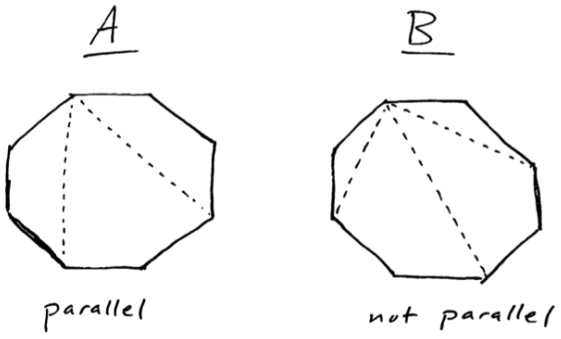
6. The figure below is a regular octagon. A diagonal of an octagon is any line segment connecting two nonadjacent vertices.



Quantity A	**Quantity B**
The number of diagonals of the octagon that are parallel to at least one side of the octagon	**The number of diagonals of the octagon that are not parallel to any side of the octagon**

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: To determine the value for Quantity A, start by labeling each vertex of the octagon. Next, pick one starting point, and test to see how many diagonals are parallel to at least one side of the octagon (the drawing on the right). You'll see that only two diagonals fulfill this requirement. Now, do the same thing, but try to draw AS. At this point, you can probably tell what the answer is going to be.

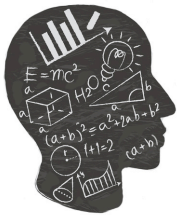


However, since the question technically asks us to calculate the precise number of diagonals, we can do a little math for teaching purposes. First off, this is a combination (aka grouping) question, not a permutation (aka arrangement) question, because diagonal AB and diagonal BA are the same diagonal, and hence order does not matter.

Quantity A = (8 starting points) x (2 ending points) / 2! = 8. Dividing by the 2!, which equals 2 x 1 = 2, eliminates any repeats.)

Quantity B = (8 starting points) x (3 ending points) / 2! = 12.

8 < 12 so the answer is **CHOICE B**.



7. The function f is defined by $f(x) = 5x + 1$ for all numbers x.

Quantity A	Quantity B
$f(t + 54) - f(t + 50)$	20

A. Quantity A is greater.
B. Quantity B is greater.
C. The two quantities are equal.
D. The relationship cannot be determined from the information given.

EXPLANATION: Functions require a lot of math, but they are easy once you get used to them, because the process is always more or less the same: first, write down the definition of the function. Next, plug in your values for x (input) on the left side and right side of the equation, replacing whatever is in the parentheses (usually x) with whatever the question requires (in this case, $(t + 54)$ and $(t + 50)$. **Please note.** It's kind of cruel for ETS to have chosen the variable "t" here, because a lowercase T tends to look like a plus sign. Hence, I suggest making your T's curvy on the bottoms, like I do below, or simply substituting a different variable, such as y.

$f(x) = 5x + 1$

$f(t+54) = 5(t+54) + 1$

$= 5t + 270 + 1$

$= 5t + 271$

$f(t+50) = 5(t+50) + 1$

$= 5t + 250 + 1$

$- \quad = 5t + 251$

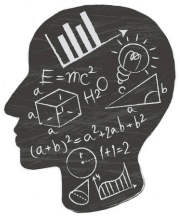
subtract

20

$20 = 20$

C

The answer is **CHOICE A**.



8. How many different two-digit positive integers are there in which the tens digit is greater than 6 and the units digit is less than 4?

   A. 7
   B. 9
   C. 10
   D. 12
   E. 24

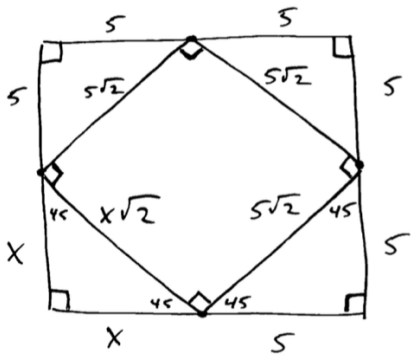
EXPLANATION: This is a pretty basic permutations question. We have 3 choices for the tens digit (7,8, or 9) and 4 choices for the ones digit (0,1,2,3), so the answer is 3 x 4 = 12, **CHOICE D**.

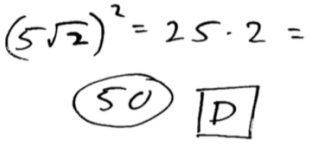
9. The perimeter of square S is 40. Square T is inscribed in square S. What is the least possible area of square T?

   A. 45
   B. 48
   C. 49
   D. 50
   E. 52

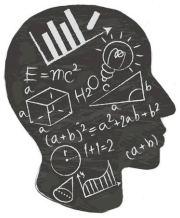
EXPLANATION: Remember that "inscribed" means "a figure drawn within another so that their boundaries touch but do not intersect." Upon drawing a square within another square, we discover that we have bisected all of the sides of the larger square. We can then use the property of a square (all angles are right angles) to determine the sides of the smaller square using the 45/45/90 special ratio (x, x, $x\sqrt{2}$). If $x = 5$, then $x\sqrt{2} = 5\sqrt{2}$.

The area of a square is s^2, so $(5\sqrt{2})\ (5\sqrt{2}) = (25)\ (2) = 50$.





The answer is **CHOICE D**.



10. Kelly took three days to travel from City *A* to City *B* by automobile. On the first day, Kelly traveled $^2/_5$ of the distance from City *A* to City *B*; and on the second day, she traveled $^2/_3$ of the remaining distance. Which of the following is equivalent to the fraction of the distance from City *A* to City *B* that Kelly traveled on the third day?

A. $1 - {}^2/_5 - {}^2/_3$
B. $1 - {}^2/_5 - {}^2/_3 ({}^2/_5)$
C. $1 - {}^2/_5 - {}^2/_5 (1 - {}^2/_3)$
D. $1 - {}^2/_5 - {}^2/_3 (1 - {}^2/_5)$
E. $1 - {}^2/_5 - {}^2/_3 (1 - {}^2/_5 - {}^2/_3)$

EXPLANATION: This is one of those interesting GRE Quant questions where the test is not actually asking you for the answer — instead, it is actually asking you for the correct operation needed to determine the answer, which makes it mostly conceptual.

The "1" in the answers stands for 100%: the total amount of distance that Kelly travels.

From that 1, we must first subtract $^2/_5$ of the total distance. Hence, $1 - {}^2/_5$ (which equals $^3/_5$, of course, but as you can see from the answer choices, we don't need to go that far).

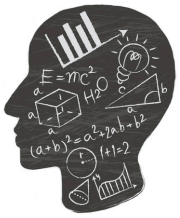
Next comes the tricky part. Now, we must subtract $^2/_3$ *of the remaining distance*. Since the remaining distance is $(1 - {}^2/_5)$, and "of" means multiply, then we should be multiplying $^2/_3$ by $(1 - {}^2/_5)$. Hence the answer is **CHOICE D**.

An alternate means of solving (or double-checking) this question would be to pick your own value for the total distance. Since I see a lot of 3s and 5s in the denominators of the answers, it would probably be wise to pick something that is a multiple of 3 and 5, such as 15.

If the total distance is 15, and we subtract $({}^2/_5 = {}^6/_{15})$, then we are left with 9 miles.

If there are 9 miles left, and we subtract $^2/_3$ of them, the we are left with 3 miles.

Now, let's try Choice D to confirm our algebra. $^{15}/_{15} - {}^6/_{15} - {}^2/_3({}^3/_5) = {}^9/_{15} - {}^6/_{15} = {}^3/_{15}$. Confirmed!



11. If x and y are integers and $x = 50y + 69$, which of the following must be odd?

A. xy
B. $x + y$
C. $x + 2y$
D. $3x - 1$
E. $3x + 1$

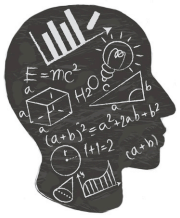
EXPLANATION: Remember that for a "must be" question, our goal as a test-taker should be to disprove the answer choices until only one remains. Hence, if we are trying to determine which question must be odd, then our goal should be to try to produce an even output.

If $x = 50y + 69$, then x must be an odd number, because $50y$ will always be even, and EVEN + ODD = ODD. So when we pick an x, we must choose an odd number. The value of y, however, can be whatever we want.

For the sake of making the math easy, let's say that $x = 1$.

CHOICE A: (1)(4) = 4 = even. NO
CHOICE B: 1 + 3 = 4 = even. NO
CHOICE C: 1 + 2(3) = 7 = odd. Try again. 1 + 2 (5) = 11 = odd. Try as much as you like, but this will always output an ODD number.
CHOICE D: 3(1) – 1 = 2 = even. NO
CHOICE E: 3(1) + 1 = 4 = even. NO

The answer is **CHOICE C**.



12. In the first half of last year, a team won 60 percent of the games it played. In the second half of last year, the team played 20 games, winning 3 of them. If the team won 50 percent of the games it played last year, what was the total number of games the team played last year?

A. 60
B. 70
C. 80
D. 90
E. 100

EXPLANATION: You might be at first tempted to simply pick an easy number (such as 100) for the total number of games, but you will eventually realize that this is not possible, because the total number of games is precisely what the question is asking for. In other words, there is only one total number of games where you can win 60% of your games, then lose 17 out of 20, then still end up with a 50% winning percentage. Please note that you cannot assume that the number of games in the first half and second half of the year to be equal.

1st Half

.6 (#games) = wins

2nd Half

3 wins / 20 games

Total:

.5 (#games) = wins

Av = total / # of games ← this is what the question is asking for!

$.5 = \frac{.6x + 3}{x + 20}$ cross multiply

$.5x + 10 = .6x + 3$

$7 = .1x$

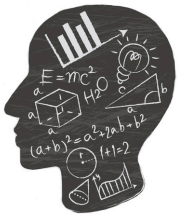
$70 = x$

so $x + 20 =$

$70 + 20 = 90$

D

The answer is **CHOICE D**.

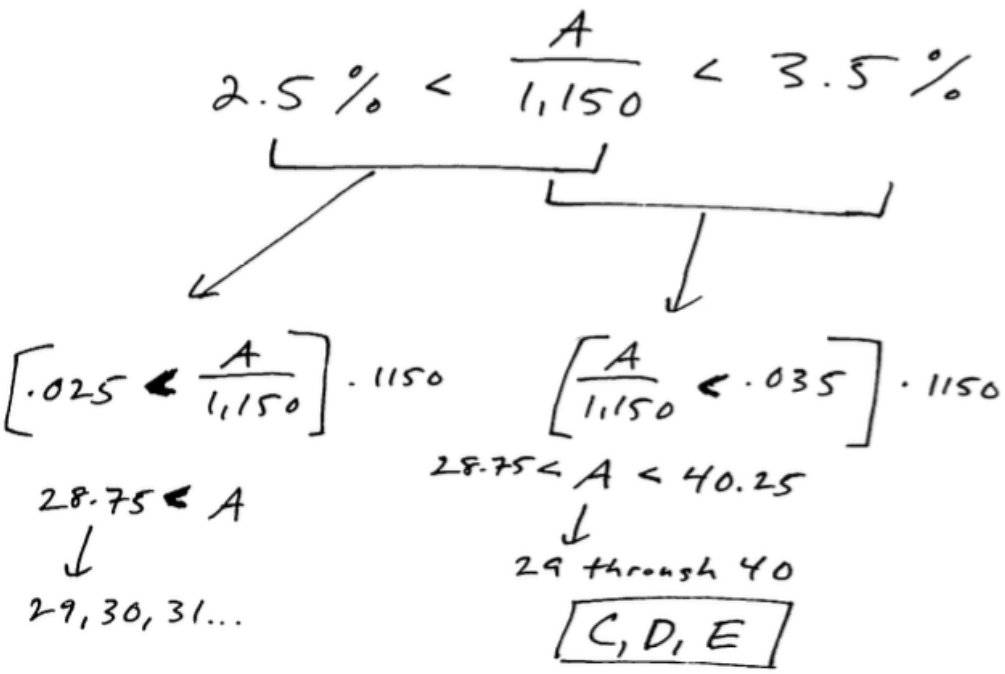


13. A survey asked 1,150 people to choose their favorite laundry detergent from brands *A*, *B*, and *C*. Of the people surveyed, *x* percent chose *A* as their favorite brand. If *x* is rounded to the nearest integer, the result is 3. Which of the following could be the number of people who chose *A* as their favorite brand?

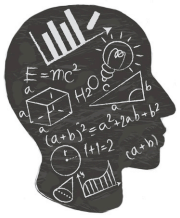
    Indicate *all* such numbers.

    A. 20
    B. 25
    C. 30
    D. 35
    E. 40
    F. 45
    G. 50

EXPLANATION: This one's pretty easy. You can either test your answers to see which ones fit the description, or you can use algebra (see below).



The correct answers are **CHOICES C, D, and E**.

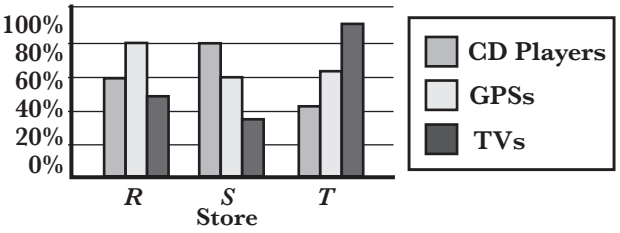


14. **THREE TYPES OF ELECTRONIC UNITS IN STOCK & SOLD BY STORES *R*, *S*, AND *T* LAST MONTH**

Number of Units in Stock

Store	CD Players	GPSs	TVs
R	75	55	40
S	90	40	35
T	80	25	50

Number of Units Sold as a Percent of Number of Units in Stock



The total number of GPSs in stock last month in Stores *R* and *T* was what fraction of the total number of GPSs in stock last month in all three stores?

A. $1/2$
B. $2/3$
C. $7/9$
D. $4/5$
E. $8/9$

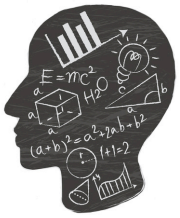
EXPLANATION: See below.

$$\frac{\text{total \# of G.P.S. from R and T}}{\text{total \# of GPS from R, S, and T}} =$$

$$\frac{55+25}{55+25+40} =$$

$$\frac{80}{120} = \frac{2}{3}$$ B

The answer is **CHOICE B**.

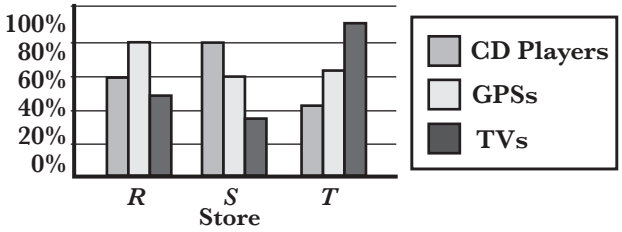


15. **THREE TYPES OF ELECTRONIC UNITS IN STOCK & SOLD BY STORES *R*, *S*, AND *T* LAST MONTH**

Number of Units in Stock

Store	CD Players	GPSs	TVs
R	75	55	40
S	90	40	35
T	80	25	50

Number of Units Sold as a Percent of Number of Units in Stock



The number of television sets sold by Store *R* last month was approximately what percent less than the number of television sets sold by Store *T* last month?

A. 40%
B. 56%
C. 86%
D. 95%
E. 125%

EXPLANATION: See below.

#15 % change = $\left(\frac{\text{difference}}{\text{original}}\right) \cdot 100$

(.5)(40) = 20

#TVs sold: R last month = 50% of 40 = 20

#TVs sold: T last month = 90% of 50 = 45

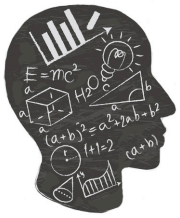
(.9)(50) = 45

Translation: 20 is what % less than 45?

$100 \cdot \left(\frac{45-20}{45}\right) = \left(\frac{25}{45}\right) \cdot 100 = 56\%$

B

The answer is **CHOICE B**.

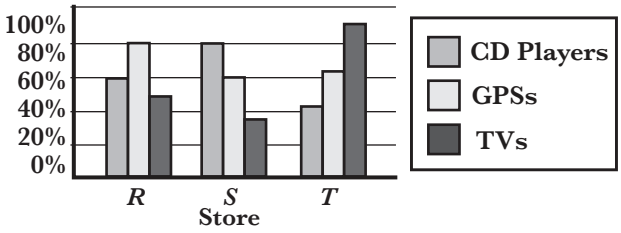


16. **THREE TYPES OF ELECTRONIC UNITS IN STOCK & SOLD BY STORES *R*, *S*, AND *T* LAST MONTH**

Number of Units in Stock

Store	CD Players	GPSs	TVs
R	75	55	40
S	90	40	35
T	80	25	50

Number of Units Sold as a Percent of Number of Units in Stock



Each of the CD players sold by Store *S* last month was sold at the price of $119.95 plus a 7 percent sales tax. Approximately what was the total revenue, including sales tax, for the CD players sold by Store *S* last month?

A. $8,640
B. $9,240
C. $10,270
D. $10,800
E. $11,550

EXPLANATION: Remember that an easy way to increase by 7 percent is to multiply by 1.07 (similarly, you could multiply by .93 to *decrease* by 7 percent). See below.

#16 $(119.95)(1.07) = \$128.35$ per unit

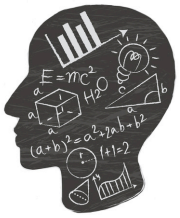
Store S = 80% of 90 =

$(.8)(90) = 72$ units

$(72 \text{ units})\left(\frac{\$128.35}{\text{unit}}\right) = \$9,240$

B

The correct answer is **CHOICE B**.



17. In the sequence $a_1, a_2, a_3, \ldots, a_{100}$, the k th term is defined by $a_k = \frac{1}{k} - \frac{1}{k+1}$ for all integers k from 1 through 100. What is the sum of the 100 terms of this sequence?

A. $\frac{1}{10,100}$

B. $\frac{1}{101}$

C. $\frac{1}{100}$

D. $\frac{100}{101}$

E. 1

EXPLANATION: Warning: don't try to solve this question using the "sum of the first *n* terms of an arithmetic sequence" formula...it's way too messy because of the denominators. Instead, approach this question conceptually. Write out the first few terms until you get a feel for the pattern. The 2nd and 3rd terms cancel each other out, the 4th and 5th terms cancel each other out, the 6th and 7th terms cancel each other out...eventually you realize that the only two terms that will not cancel out are the very first and last parts of the sequence. See below.

$a_k = \frac{1}{k} - \frac{1}{k+1}$ sum of 1st 100 terms?

$a_1 = \frac{1}{1} - \frac{1}{2} = \frac{1}{2}$

$a_2 = \frac{1}{2} - \frac{1}{3} = \frac{1}{6}$

$a_3 = \frac{1}{3} - \frac{1}{4} = \frac{1}{12}$

...

$a_{100} = \frac{1}{100} - \frac{1}{101}$

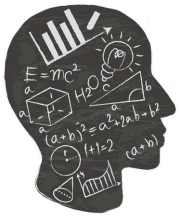
Notice: all numbers cancel out except the 1st and last!

FIRST − LAST =

$1 + \left(-\frac{1}{101}\right) =$

$\frac{101}{101} - \frac{1}{101} = \frac{100}{101}$ D

The answer is **CHOICE D**.



18. If $|x + 1| \leq 5$ and $|y - 1| \leq 5$, what is the least possible value of the product xy?

EXPLANATION: The concept being tested here is this: in order to have the least possible value of a product, you must find the positive number of the largest magnitude, and combine that number with the negative number of the largest magnitude. Then, solve the respective inequalities using algebra and the rules of absolute value inequalities. See below.

#18

$|x+1| \leq 5$

remove AV only

1) remove AV
2) flip arrow
3) change sign →

$x+1 \leq 5$ $\quad$ $x+1 \geq -5$

$x \leq 4$ $\quad$ $x \geq -6$

$\boxed{-6 \leq x \leq 4}$

$|y-1| \leq 5$

$y-1 \leq 5$ $\quad$ $y-1 \geq -5$

$y \leq 6$ $\quad$ $y \geq -4$

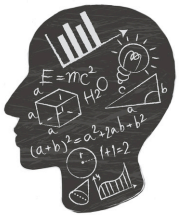
$\boxed{-4 \leq y \leq 6}$

CONCEPT: least possible value =

(largest positive)(smallest negative)

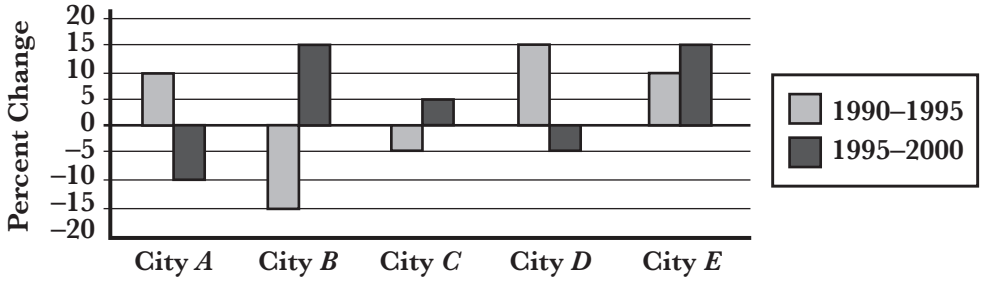
$(6)(-6) = \boxed{-36}$

The answer is **-36** (yes, negative answers are possible on the GRE).



19.

PERCENT CHANGES IN ANNUAL CITY TAX REVENUE, 1990-2000



The graph shows the percent changes in the annual city tax revenue for five cities from 1990 to 1995 and from 1995 to 2000. If the annual tax revenue in City *B* was $800,000 in 1990, what was the annual tax revenue in City *B* in 2000?

A. $578,000
B. $680,000
C. $782,000
D. $800,000
E. $920,000

EXPLANATION: This question is simply asking you to start with $800,000, then consult the graph and perform a 15% decrease (multiply by .85), followed by a 15% increase (multiply by 1.15). ***Please note that decreasing by 15% and then increasing by 15%, does not result in a return to the original number, because the 2nd percent is of a smaller total than the original.***

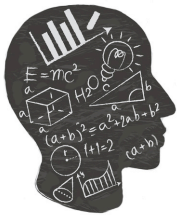
1990 = $800,000

(800,000)(.85)(1.15) = 782,000

1990 1995

C

The answer is **CHOICE C**.



20. If x, y, and z, are positive numbers such that $3x < 2y < 4z$, which of the following statements could be true?

    Indicate *all* such statements.

    A. $x = y$
    B. $y = z$
    C. $y > z$
    D. $x > z$

EXPLANATION: "Could be true" questions are much different than "must be true" questions: for a "must be true" question, even one counter-example can prove the answer incorrect. Conversely, for a "could be true" question, counter-examples don't matter — we simply have to tinker with the numbers until we can make it true ***even just once***. See below.

even just one example will suffice.

x, y, z = positive

$3x < 2y < 4z$

WHICH COULD BE TRUE?

✗ A) $x = y$ $\quad [3x < 2y] \div 3$

$x < \frac{2}{3}y$ → not possible

✓ B) $y = z$ $\quad 2y < 4z$

$2 = 2$ $\quad 2(2) < 4(2)$?

$4 < 8$? YES

B/C/D

✓ C) $y > z$ $\quad 2y < 4z$

$3 > 2$ $\quad 2(3) < 4(2)$?

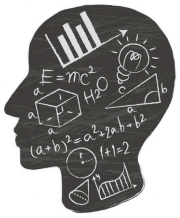
$6 < 8$ YES.

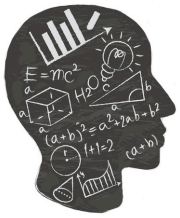
✓ D) $x > z$ $\quad [3x < 4z] \div 3$

$5 > 6$ $\quad x < \frac{4}{3}z$?

$5 < \left(\frac{4}{3}\right)\left(\frac{6}{1}\right) = \frac{24}{3} = 8$, $5 < 8$? YES!

The answer is **CHOICE B, C, D**.


$E=mc^2$
H_2O
$(a+b)^2=a^2+2ab+b^2$
1+1=2


$E=mc^2$
H_2O
$(a+b)^2=a^2+2ab+b^2$
$f+1=2$
$(a+b)$