

## PRACTICE TEST 1 EXPLANATIONS

### Section 1: Reading

- 1. A** This question asks about a major theme of the passage. Because this is a general question, it should be done after the specific questions have been completed. Throughout the passage, the main character speaks of his love for Amy, discusses their relationship, and then worries about his ability to be a good husband because he might not have any money. Find an answer that's consistent with this prediction. Choice (A) is a solid paraphrase of this structure, so keep it. Choice (B) can be eliminated because the references to money and poverty make the passage about more than *unequivocal joy*. Choice (C) can be eliminated because it doesn't include any reference to the happiness and love from the first part of the passage. Choice (D) matches the narrator's fear of not succeeding, but like (C), it does not include any mention of love or happiness. Eliminate (D). The correct answer is (A).
- 2. A** This question asks about the narrator's wife and how she responds to his declaration of love. Notice that it is the first question in a paired set, so it can be answered in tandem with Q3. Start with the answers to Q3 first. The lines for (3A) describe Amy as *slender fashioned yet gloriously strong*. These lines have nothing to do with the narrator's declaration of love, so eliminate (3A). The lines for (3B) say that she *spoke with such a sweet decision* and that her response was a *bond with eternity*. These lines support (2A), so draw a line connecting those two answers. Choice (3C) references Amy's wish *to become his wife*. These lines also might seem to support (2A), but there is no actual pledge in (3C) as there is in (3B). Eliminate (3C). The lines for (3D) reference a poem the narrator sent Amy. Although (2D) mentions writing poetry, it is the narrator who writes the poetry, not Amy. Eliminate (3D). Without support from Q3, (2B), (2C), and (2D) can be eliminated. The correct answers are (2A) and (3B).
- 3. B** (See explanation above.)
- 4. B** This question asks about a technique the author uses to express Amy's desire to marry the narrator. Lines 26–27 say that *Amy wished nothing but to become his wife*. Use those lines to find the window and read carefully. Within the window, the narrator asks *Delay? Why should there be delay?* He then goes on to say that *Amy wished nothing but to become his wife*, so he isn't actually asking for a reason to delay the marriage. Eliminate any answers that are not supported by the text. Choice (A) says that the narrator describes her *youthful enthusiasm as a major motivating factor*. There is nothing in the window to support that answer, so eliminate it. Choice (B) says that the narrator *presents a hypothetical question that is immediately refuted*. This is consistent with the prediction, so keep it. Choice (C) says that the narrator *applauds her decision* as a reflection of her unparalleled inner strength. This is not supported, so eliminate it. Choice (D) refers to her *sincerity and dedication* fostered by her maidenhood. This is also not supported by the text, so eliminate it. The correct answer is (B).

5. **B** This question asks about the narrator's book writing as compared with his love-letter writing. In lines 29–31, the narrator says that *his brain burned with visions of the books he would...write, but his hand was incapable of anything but a love-letter*. Therefore, compared to his love-letter writing, his book writing is not happening. Eliminate anything that is not consistent with this prediction. Choices (A), (C), and (D) can all be eliminated, because *agreeable*, *fiery*, and *imaginative* are not consistent with the prediction. Choice (B), *stalled*, is the only answer choice consistent with the idea of “not happening.” The correct answer is (B).
6. **C** This question asks about a distinction made between Amy and the narrator. Notice that this is the first question in a paired set, so it can be done in tandem with Q7. Start with the answers to Q7 first. Choice (7A) describes how the narrator sees Amy, that she's *beautiful beyond anything his heart could imagine*. These lines could support (6B), so draw a line connecting those two answers. The lines for (7B) describe Amy's ability to see the narrator's wishes in *the simplest as in the greatest things* and then acting upon those. These lines describe Amy, but there's no contrast with the narrator. Eliminate (7B). The lines for (7C) refer to Latin and Greek and state that Amy should *learn both, that there might be nothing wanting in the communion....* These lines support (6C), so draw a line connecting those two answers. The lines for (7D) refer to Amy wanting to wait on their honeymoon until the narrator sells his book. Those lines show a contrast between the two characters, but they don't support any of the answers for Q6. Eliminate (7D). Go back to the two pairs of connected answers and read a little more around each set of lines given. Choices (6B) and (7A) initially seem to connect, but there's no mention of the narrator's *common appeal*. Choices (6C) and (7C) have a solid connection. The text refers to *how much she had read*, but not *Latin and Greek*. The lines go on to say that *she should learn them...as the old masters...had been such strength to him*, clearly supporting the contrast between her *conventional education* and his *love of language*. The correct answers are (6C) and (7C).
7. **C** (See explanation above.)
8. **A** This question asks what *wanting* most nearly means in line 40. Go back to the text, find the word *wanting*, and cross it out. Then read the window carefully, using context clues to determine another word that would fit in the text. The text refers to Amy's lack of knowledge about Latin and Greek, and then says that she should learn them, so *there might be nothing wanting in the communion between....* The missing word must mean something like “missing” or “failing.” Choice (A), *lacking*, is consistent with this prediction. Choices (B) and (D) are both possible definitions for *wanting*, but they do not fit with the context of the passage. Eliminate both of them. Choice (C), *pleasing*, is not consistent with “missing” or “failing.” Eliminate (C). The correct answer is (A).

9. **C** This question asks about the narrator's use of the phrase *what happiness lurked in embryo* as it refers to his publishers. Carefully read the window around lines 48–49 to determine what the narrator is saying about the publishers. He says that for his *marriage holiday* with Amy, he must get *a good price for a book* and that the publishers *must be kind*. He goes on to ask if they know what happiness lurks *within their foolish cheque-books*. The publishers, therefore, have a lot of power over whether or not Amy and the narrator will be happy, because their marriage holiday is totally dependent on whether or not they give the narrator a good price for his book. The correct answer should be consistent with the idea of “having power.” Choice (A) can be eliminated because the narrator is hoping the publishers will be *kind*, but there's no evidence as to whether they actually are or not. They might be *wealthy*, but there's no mention of that in the text, so eliminate (B). Choice (C), *influential*, is consistent with the prediction, so keep it. Choice (D) might initially look good, because *foolish* is in the text, but it is not consistent with “having power.” Eliminate (D). The correct answer is (C).
10. **D** This question asks about the function of the final paragraph. Carefully read the paragraph and determine its function in the context of the passage. Throughout the passage, the narrator talks about Amy and his love for her. Then, at the end, he suddenly starts to worry about poverty, finding himself very concerned about the *chilling of brain and heart* and *the dread feeling of helplessness*. This final paragraph describes a concern of the narrator. Eliminate any answer choices that aren't consistent with this prediction. Choice (A) can be eliminated because this paragraph shifts from the narrator's focus on Amy to his concern about poverty. Choice (B) can also be eliminated because there is no mention in the paragraph of *long-term effects...on [his] relationship*. Although the narrator worries that he *cannot support his wife*, he's worried about his ability to support her financially. There is nothing in the text to support *revealing his hysteria*. Eliminate (C). Choice (D) is consistent with the prediction. The correct answer is (D).
11. **A** This question asks about the main purpose of the passage. Because it is a general question, it should be done after all the specific questions have been completed. The passage begins with a description of GPS and how it works, and then introduces a problem with GPS. The passage continues by describing a more reliable alternative to GPS called the eLoran system. Eliminate any answer choices that are inconsistent with this prediction. Choice (A) is a clear paraphrase of the prediction, so keep it. Choice (B) can be eliminated because how *clocks and satellites determine distance and location* is a detail in the passage, not its main idea. Choice (C) can be eliminated because there are no discussions about problems within specific industries. Choice (D) can be eliminated because the main idea of the passage is not to *praise developers*. The correct answer is (A).

12. A This question asks what *conceived* most nearly means in line 13. Go back to the text, find the word *conceived*, and cross it out. Then read the window carefully, using context clues to determine another word that would fit in the text. The passage says that GPS was *initially conceived to aid navigation*, but that now it's a *much more critical function of the system*. There has been a change in how GPS is used since it was first developed. The missing word must mean something like "thought of" or "created." Choice (A) is consistent with this prediction, so keep it. While *understood* is a possible definition for *conceived*, the meaning does not fit with the context of the passage, so eliminate (B). The passage does not refer to GPS being either *absorbed* or *accepted*, so (C) and (D) can also be eliminated. The correct answer is (A).
13. A This question asks about the purpose of the lines provided. Go back to the window and read carefully to determine why the author included those lines. The lines ask a question about what would happen if GPS *were wiped out*. The text then goes on to answer that question with the response, "Nobody knows." These lines present a potential complication with GPS, so find an answer consistent with that prediction. Choice (A) is a solid paraphrase of "presenting a potential complication," so keep it. Choice (B) can be eliminated because no *corrections* are being made. Choice (C) can also be eliminated because nothing is being *reconsidered*, and (D) can be eliminated because no idea is being *undermined*. The correct answer is (A).
14. D This question asks about Lombardi's attitude toward "flying clock radios." Carefully read the window around line 28. After the *flying clock radios* are mentioned, Lombardi says, "Nobody knows exactly what would happen." He then goes on to say, "there's no back-up." Therefore, Lombardi is a bit concerned about potential problems with the current state of GPS. Eliminate answer choices that aren't consistent with this prediction. Choice (A) can be eliminated because *confident* is not consistent with *concerned*. Choice (B) does say that Lombardi is *concerned*, but then goes on to say that concern comes from not knowing how the radios will *interact with eLoran systems*. That's not consistent with the prediction, so eliminate (B). Choice (C) might initially look attractive because of the phrase *no one knows*, but the text says that no one knows what will happen if the GPS system is wiped out, whereas (C) says no one knows *exactly how they work*. Additionally, Lombardi is not *annoyed*. Eliminate (C). Choice (D) matches the prediction. The correct answer is (D).
15. C This question is the best evidence question in a paired set. Because Q14 was a specific question, choose the answer to Q15 that includes the lines used to make the prediction for Q14. The correct answer is (C).

16. **C** This question asks what *bulk* most nearly means in line 34. Go back to the text, find the word *bulk*, and cross it out. Then read the window carefully, using context clues to determine another word that would fit in the text. The text says *the bulk of a more promising...system already exists* and then goes on to explain that it's mostly finished. The missing word must mean something like "big part." Eliminate any answers that are not consistent with that prediction. Choices (A) and (B) are potential definitions of *bulk*, but they aren't consistent with the text. Eliminate both of them. There is evidence in the text to support the idea that the eLoran system is not completely and totally ready to be used, so (D), *totality*, is too strong. Choice (C) is consistent with the idea of "big part." The correct answer is (C).
17. **B** The question asks about the reason for a situation as given by John Garamendi. Use *John Garamendi* as lead words, and search for them in the window. Carefully read the window around line 57 to determine why Garamendi says *America isn't using the eLoran system*. In lines 62–65, he says there are two kinds of time, *real time...and then federal time, which seems to be the forever time*. He goes on to say that although the *eLoran system was identified as a backup fifteen years ago...here we are, federal time, not yet done*. Therefore, although the technology exists, the federal government is moving slowly and preventing the technology from being used. Eliminate anything that isn't consistent with that prediction. Choice (A) mentions *real time*, but the problem is not with the eLoran system itself. Eliminate (A). Choice (B) is consistent with the prediction, so keep it. Choice (C) can be eliminated because there is no indication in the text that the decision-makers are *scared*. Choice (D) is not mentioned in the window at all, so eliminate it. The correct answer is (B).
18. **B** This is the best evidence question for Q17, which was a specific question containing lead words. The correct answer will be the lines that contain Garamendi's quote about federal time being slower than real time. The correct answer is (B).
19. **A** This question asks which group is closest in percentage to the percentage of users 18–29 in May 2011. Look at figure 1 to find that 18–29-year-olds in May 2011 are roughly 60%. Two other groups are close to that: 30–49 in May 2011 and 50+ in February 2012. Only one of those is an answer choice. The correct answer is (A).
20. **D** This question asks which statement is supported by figure 2. Go to the figure and eliminate any answer choices not supported by the data. Choice (A) can be eliminated because the Automotive industry accounts for 39%, which is greater than a third. Choice (B) can be eliminated because Surveying/Mapping is 8%, which is greater than the 6% covered by Precision Agriculture. Choice (C) can be eliminated because there is no indication of levels of importance. Choice (D) is correct because Automotive and Marine add up to 72% and the other industries combined add up to only 28%. The correct answer is (D).

21. **C** This question asks what additional information would be useful in figure 2 to evaluate the claim that *globally synchronized time is a much more critical function of the system*. As written, figure 2 shows the percentage of GPS equipment revenue from each industry. There is no indication of how important GPS is to each industry, which would be the information needed to evaluate the claim. Choice (A) can be eliminated because that information would not show the importance of GPS in each industry. Choice (B) can also be eliminated, because although it would give information about each industry, the number of people using GPS doesn't give information about GPS's importance without additional information about the total number of people in each industry. Keep (C) because knowing that a high percentage of an industry relies on GPS would help evaluate the claim that GPS is a critical function. Choice (D) can be eliminated because the amount of revenue does not show how often GPS is used within an industry. The correct answer is (C).
22. **D** The question asks for the primary purpose of the passage. Because this is a general question, it should be done after all of the specific questions. The passage discusses the receding of the Dead Sea, suggests that water policy is a cause of the decline, and outlines some possible solutions. Eliminate (A) because it does not include any discussion of the Dead Sea. In addition, although the passage discusses water policy, it does not discuss *how* the governments create water policy. Eliminate (B) because *the many species of plants, fish, and mammals that live in the Dead Sea region* are discussed only in the first paragraph of the passage. Eliminate (C) because, although the passage does *explain the consequences of continuing current water policy in the Dead Sea region*, this choice does not include the passage's discussion of solutions. Keep (D) because it includes both the *cause of the decline* and *a possible remedy*. The correct answer is (D).
23. **B** The question asks what the word *harbor* means in line 12. Go back to the text, find the word *harbor*, and cross it out. Carefully read the surrounding text to determine another word that would fit in the blank based on the context of the passage. The first paragraph states that *a half dozen oases along the shore harbor scores of indigenous species of plants, fish and mammals....* The next sentence states that many birds *take refuge here* during migration. The correct answer should mean something like "give refuge." Eliminate (A): although it might be true that the oases *nourish* these animal species, *nourish* does not mean "give refuge." Keep (B) because *shelter* is consistent with "give refuge." Eliminate (C) and (D) because the oases are neither "amusing" the animals, nor "thinking carefully" about them. The correct answer is (B).

24. **B** The question asks why the author mentions *Ein Feshka*. Look for *Ein Feshka*, which is first mentioned in line 18. The beginning of the paragraph briefly describes the history and *ecosystems of the Dead Sea region*. The last two sentences of the paragraph state that *Ein Feshka, a lush expanse of tamarisk, papyrus, oleander and pools of crystal water, was used by the late king Hussein of Jordan as a private playground in the 1950s and early '60s. But as the Dead Sea recedes, the springs that feed the oases are moving along with it; many experts believe that Ein Feshka and other oases could wither away within five years*. The author mentions Ein Feshka to transition from describing the area to talking about a specific problem. Eliminate (A) because Ein Feshka is not mentioned primarily as a historical site; the region's *ecosystems* are emphasized. Keep (B) because this choice describes the *transition from a description of the region to a discussion of a problem the region faces*. Eliminate (C) because the region's *ecosystems* are emphasized; the author's purpose is not to discuss a need for recreation areas. Eliminate (D) because the author is introducing an environmental problem, not arguing that *environmental impacts vary with different types of land use*. The correct answer is (B).
25. **C** The question asks why the author includes *both Labor and Likud governments* in lines 28–33. Use the given line reference to find the window. The second paragraph states that *[f]rom the first years of Israel's existence as a Jewish state...both Labor and Likud governments have bestowed generous water subsidies on the nation's farmers*. Eliminate (A) because, although governments of both parties have had similar water policies, the passage does not state that there was *cooperation between* the parties. Eliminate (B) because the passage mentions only two parties; there is not enough support for the statement that the policy is popular among *all political parties*. Keep (C) because the fact that *both Labor and Likud governments* have given the water subsidies indicates *broad political support*. Notice that this choice is similar to (B), but it does not contain wording as strong as *all political parties*. Eliminate (D) because, although the passage criticizes the current water policy, it does not criticize the *politicization of natural resources*. The correct answer is (C).
26. **D** The question asks who or what the *water laws favor*. Look for references to water laws in the passage. The second paragraph states that *both Labor and Likud governments have bestowed generous water subsidies on the nation's farmers*. Eliminate (A) because there is no mention of the *tourism industry* benefitting from the water laws. Eliminate (B): although the passage indicates that the *government* sets the water laws, it does not state that the water laws *favor* the government. Eliminate (C) because the passage indicates that *environmental activists* advocate for eliminating the current water subsidies. Keep (D) because *farmers* is supported by the second paragraph. The correct answer is (D).

27. **A** The question asks what can be *inferred about the agriculture industry in the Dead Sea region*. Notice that the following question is a best evidence question, so this question and Q28 can be answered in tandem. Look at the answers for Q28 first. The lines for (28A) state that *today, agriculture accounts for just 3 percent of Israel's gross national product and uses up to half of its fresh water*. Check the answers for Q27 to see if any of the answers are supported by those lines. They support (27A), which says that the agricultural industry's *use of water is disproportionate to its impact on the economy*, so connect those two answers. Next, consider the lines for (28B). Those lines state that *the region's agricultural lobby is strong*, so look to see if those lines support any of the answers for Q27. They are close to (27C), but that choice states that the agricultural industry is the *most powerful influence* on regional governments, which is not supported. Eliminate (28B). The lines in (28C) state that *these facilities will provide as much as 106 billion gallons of fresh water annually for agricultural and domestic consumption*. This is close to (27D), but it doesn't quite match: the lines in (28C) mention both *agricultural and domestic consumption*, while (27D) indicates that the agricultural industry alone *will soon use more than 100 billion gallons of water from treatment facilities*. Eliminate (28C). The lines in (28D) quote an environmental activist saying, "*Israeli agriculture is incredibly mismanaged.*" These lines do not support any of the answers for Q27, so eliminate (28D). Without support from Q28, (27B), (27C), and (27D) can be eliminated. The correct answers are (27A) and (28A).
28. **A** (See explanation above.)
29. **C** The question asks what the author suggests *about tourism*. Notice that the following question is a best evidence question, so this question and Q30 can be answered in tandem. Look at the answers for Q30 first. The lines for (30A) discuss a location that *was used by the late king Hussein of Jordan as a private playground in the 1950s and early '60s*, but they do not reference *tourism*, so eliminate (30A). The lines for (30B) discuss *the building of wastewater treatment plants and desalination facilities*; they do not reference *tourism*, so eliminate (30B). The lines for (30C) discuss what farmers *could be planting*; they don't reference *tourism*, so eliminate (30C). The lines for (30D) say that the *potential tourism-dollar return of a healthy river and a healthy Dead Sea outweighs the little return that agriculture offers*. Check the answers for Q29 to see if any of the answers are supported by those lines. Choice (29C) is a paraphrase of this quote: *Tourism may provide more benefit to the Dead Sea region's economy than agriculture currently does*. Connect these two answers. Without support from Q30, (29A), (29B), and (29D) can be eliminated. The correct answers are (29C) and (30D).
30. **D** (See explanation above.)



31. **A** The question asks for the main idea of the final paragraph. Carefully read the last paragraph. The first sentence of this paragraph states that *Friends of the Earth is also taking its message to the farmers themselves—encouraging them to plant crops that use less water and spelling out the advantages of renewed tourism in the area.* The final sentence states that the *potential tourism-dollar return of a healthy river and a healthy Dead Sea outweighs the little return that agriculture offers.* Keep (A), since the paragraph discusses *new practices that farmers can adopt to use less water, leading to a healthy Dead Sea.* Eliminate (B) because the paragraph does not say that *farmers should stop planting crops;* it only says that farmers should *plant crops that use less water.* Eliminate (C) because the passage it does not make a prediction that *tourism will soon replace agriculture;* it says that the *potential tourism-dollar return* would be better than the return from agriculture, if the Dead Sea and Jordan River were healthy. Eliminate (D) because the paragraph discusses recommendations for farmers from environmental activists; it does not discuss how *farmers are adjusting their practices.* The correct answer is (A).
32. **A** This question asks what *aim* most nearly means in line 1. Go back to the text, find the word *aim*, and cross it out. Then read the window carefully, using context clues to determine another word that would fit in the text. The window talks about what *charitable people* should want: not so much *giving with money in hand or religious teaching, but friendly intercourse...and the desire to stimulate hope and energy.* The author is talking about what the people should want to do, so the missing word must mean something like “goal” or “end game.” Eliminate any answers that aren’t consistent with this prediction. Choice (A), *focus*, is consistent, so keep that answer. Choice (B) might initially look attractive because *aim* and *shot* seem to go together, but *shot* is not consistent with the prediction. Eliminate (B). Choices (C) and (D) can both be eliminated, because neither *gift* nor *ability* is a “goal” or “end game” that a person could work toward. The correct answer is (A).
33. **C** This question asks how Platt suggests society reduce poverty. Notice that this is the first question in a paired set, so it can be done in tandem with Q34. Begin with the answers to Q34. The lines for (34A) say that even the lowest types of humanity can be improved, but the author doesn’t specify how. This answer does not support any of the answers for Q33, so eliminate (34A). The lines for (34B) talk about how those who want to be reformers will study the problem, but again, this does not support any of the answers for Q33. Eliminate (34B). The lines for (34C) say that someone who wants to be a reformer will *tell the poor how they may become less so, and not rob others of what they have.* These lines support (33C), so draw a line connecting those two answers. The lines for (34D) say that the problem can be solved by *regenerat[ing] the entire social fabric* through laws, aims, instincts, and individual cooperation. Although these lines address the question, they do not support any of the answers for Q33. Eliminate (34D). Without support from Q34, (33A), (33B), and (33D) can be eliminated. The correct answers are (33C) and (34C).
34. **C** (See explanation above.)

35. **A** This question asks for the consequence of evenly distributing wealth and property, according to Reason. Notice that this is the first question in a paired set, so it can be done in tandem with Q36. Consider the answers for Q36 first. The lines for (36A) say that the only remaining option is *democratizing the monopoly value*. This says nothing about a consequence of evenly distributing the wealth among individuals, so these lines do not support any of the answers for Q35. Eliminate (36A). The lines for (36B) say that *such distribution would destroy its productive efficiency*. These lines support (35A), so draw a line connecting those two answers. The lines for (36C) advocate for *collective ownership* and say nothing about individual ownership. Eliminate (36C). The lines for (36D) do not discuss any consequences of wealth distribution among individuals, so this answer does not support any of the answers for Q35. Eliminate (36D). Without support from Q36, (35B), (35C), and (35D) can all be eliminated. The correct answers are (35A) and (36B).
36. **B** (See explanation above.)
37. **D** This question asks what *just* most nearly means in line 69. Go back to the text, find the word *just*, and cross it out. Then read the window carefully, using context clues to determine another word that would fit in the text. The text refers to a worker's *just wage*, earlier referring to it as the *full reward of his labor*. Therefore, the missing word must mean something like "fair" or "earned." Choices (A) and (B) can be eliminated right away because neither *only* nor *strict* means "fair." Choices (C) and (D) might both initially look good, but there is no indication that all workers are receiving the same wage. The text says only that the worker will receive the *full reward of his labor*, or everything he earned for the work he did. This is *fair*, but not necessarily *equal*. Eliminate (C). The correct answer is (D).
38. **B** This question asks how Reason would characterize the position taken by Platt that *[m]any of [the poor] prefer to be uncomfortable*. Reason says that poverty is caused by men not earning a fair wage and by an uneven distribution of wealth and property. He says that *poverty, undeserved and unavoidable, must be the lot of many, while equally undeserved income will be reaped... by many others*. Reason sees poverty as a problem with society, not with individuals. Choices (A) and (C) can both be eliminated because Reason does not agree with Platt. Choice (B) is consistent with the text, so keep it. Choice (D) can be eliminated because Platt's statement is about the poor, not the rich. The correct answer is (B).
39. **D** This question asks which statement both authors would agree with. Because this is a general question that asks about both passages, it should be answered after all the questions about each individual passage, and after any specific questions about both passages have been completed. Choice (A) can be eliminated because neither man believed any solutions would *completely solve* the problems of poverty. Choice (B) can be eliminated because Platt did not believe any measures needed to be taken to redistribute wealth. Reason, on the other hand, did not believe a *change of mindset* for the poor was needed to solve the problem, so (C) can also be eliminated. Choice (D) is consistent with both authors. The correct answer is (D).

40. **B** This question asks how both authors would characterize effective ways to reduce poverty. Because it is a general question about both passages, it should be done after the questions for each individual passage and the specific questions for both passages have been completed. Platt believed that reducing poverty required education of the poor and a change in the way the poor perceive the world. Reason believed that the structure of society reinforced poor and rich classes, and that redistributing wealth and allowing for fair wages would alleviate the problems. Eliminate any answers that aren't consistent with that prediction. Choice (A) can be eliminated because, although the first part is consistent with Platt, the second part is not consistent with Reason. Choice (B) is consistent with the prediction, so keep it. Choice (C) can be eliminated because Reason advocated for a fair wage, not Platt. Choice (D) can also be eliminated because Reason did believe that unearned riches were a feature of society, but not that they were *necessary*. The correct answer is (B).
41. **C** This question asks what Platt would say was necessary for Reason's *readjustment of distribution* to be effective. Platt's focus in Passage 1 was about shifting the mindset of the poor and helping them learn that they don't actually want to be poor. The correct answer should be consistent with that viewpoint. Eliminate (A) because that is Reason's idea, not Platt's. Choice (B) can also be eliminated, because Platt does not say anything about evenly distributing profits from property sales. Choice (C) is consistent with Platt's point of view, so keep it. Choice (D) can be eliminated because Platt does not advocate for increasing the number of jobs. The correct answer is (C).
42. **D** This question asks how the main focus of the passage shifts. Because this is a general question, it should be done after the specific questions. The passage begins with a discussion of the *first public airing of Darwinian evolution* and how it *caused almost no stir whatsoever*. It continues with how Darwin finally managed to drum up some controversy, both with religious-leaning folks and other scientists who were less than thrilled with some of the missing pieces of Darwin's research. The passage ends with a discussion of how Darwin's work laid the foundation for other researchers to come along in later years and fill in the gaps. Find an answer choice that's consistent with that prediction. Choice (A) can be eliminated because the passage does not discuss *Darwin's life*. Choice (B) can be eliminated because, although the passage does contain both *criticism* and *support* for his theory, it does not shift from one to the other. Choice (C) can be eliminated because the other scientists did not *facilitate that mystery's resolution*. Choice (D) is consistent with the prediction. The correct answer is (D).
43. **A** This question asks why Darwin's *intellectual competitors took issue with his work*. Notice that although it's the first question in a paired set, it's a specific question. Q45 gives a line reference in the second paragraph, so you can be confident that questions 42 and 43 will be answered in the first paragraph, since questions go in consecutive order. So skim the first paragraph to find something about Darwin's *intellectual competitors*. Lines 11–12 say that *scientific rivals called attention to the gaps in his evidence*. Eliminate any answer choices that aren't consistent with this prediction. Choice (A) is a direct paraphrase of the prediction, so keep it. Choice (B) can be eliminated because although the text mentions *clergymen* who *condemned the work*, the question asks about the *intellectual competitors* rather than the *church*. Choice (C) can be eliminated because the passage does not discuss whether *readers were offended*. Choice (D) might initially look good, but read carefully. It was his *allies* who applauded it as a *unifying breakthrough*, not his *rivals*. Eliminate (D). The correct answer is (A).

44. **B** This is the best evidence question for a specific question. Choose the answer that includes the lines used to predict the answer to Q43: *scientific rivals called attention to the gaps in his evidence*. The correct answer is (B).
45. **D** This question asks about the purpose of the reference to the lions in the second paragraph. Use the line reference to find the window and read carefully. The text describes Darwin's theory of nature rewarding the faster and stronger, and then gives an example of an antelope that is *slightly faster or more alert*. Its neighbors would be eaten by lions first, *granting [the antelope] one more day to live and reproduce*. Over time, the fastest antelopes reproduce, making more of the faster antelopes. Thus, the lions are mentioned in order to provide a specific example of Darwin's theory. The correct answer should be consistent with this prediction. The reference is there neither to *disprove* nor *reject*, so eliminate (A) and (C). Choice (B) can be eliminated because no *completely new idea* is being introduced. Choice (D) matches the prediction. The correct answer is (D).
46. **B** This question asks what technique the author uses to advance the main point of the third paragraph. Go back to the third paragraph and read carefully. The author begins the paragraph with a question, asking about *the source of variation* and the *mechanism for passing change from generation to generation*. He then goes on to say that *Darwin didn't know*. Eliminate any answer choices that aren't consistent with this prediction. Choice (A) can be eliminated because the author is not *ponder[ing] an unproven possibility*. Choice (B) is consistent with the text. Keep it. Choices (C) and (D) can be eliminated because the author is neither *presenting a criticism* nor *undermining the importance of Darwin's theory*. The correct answer is (B).
47. **D** This question asks about those who criticized Darwin's work when it first came out. Notice that this is the first question in a paired set, so it can be done in tandem with Q48. Consider the answers to Q48 first. The lines for (48A) say that Darwin's book *sold out its first press run*. These lines have nothing to do with those who criticized Darwin's work, so eliminate (48A). The lines for (48B) say that the one who made real progress was Mendel. Although these lines mention another scientist, which could initially make (47A) look like a good match, there is no indication the critics were *misguided in attacking a scientific discovery*. Eliminate (48B). The lines for (48C) say that an objection *certainly applied to the paucity of . . . fossils*. These lines support the ideas in (47D), both that the critics had a point, and that there was a lack of evidence (*paucity* means "lack"). Draw a line connecting these two answers. The lines for (48D) state that there has been an explosion of finds in the last 30 years, which does not support any of the answers for Q47. Eliminate (48D). Without support from Q48, (47A), (47B), and (47C) can all be eliminated. The correct answers are (47D) and (48C).
48. **C** (See explanation above.)

49. **B** This question asks what *born of* most nearly means in line 71. Go back to the text, find the phrase *born of*, and cross it out. Then read the window carefully, using context clues to determine another word or phrase that would fit in the text. The text talks about anthropologists who *depicted human evolution as...a straight line from a crouching proto-ape through successive stages...to modern human beings*. The text goes on to say it *was a fairly simple picture that was born from ignorance*, because in the last 30 years there has *been an explosion of new finds*. Therefore, the missing phrase must mean something like “came from” or “started with.” Eliminate any answer choices that aren’t consistent with this prediction. Choice (A) can be eliminated because the simplicity was not *carried by* ignorance. Choice (B) is consistent with the prediction, so keep it. Choices (C) and (D) can both be eliminated because the ignorance itself wasn’t doing anything, and neither *possessed by* nor *admitted to* is consistent with the prediction. The correct answer is (B).
50. **C** This question asks what purpose the graph serves in relation to the passage as a whole. Consider the graph. It shows a timeline from 1800 to past 2000, indicating the timeframes between the discovery of a fossil and the naming of the species. The label indicates that Darwin’s *On the Origin of Species* was published in 1859. Eliminate any answers that are inconsistent with the information provided. Choice (A) can be eliminated because there are no specifics in the graph about either Mendel’s or Darwin’s discoveries. Choice (B) can also be eliminated because there is nothing that provides *indisputable evidence* to prove Darwin’s theories. Choice (C) is consistent with the graph, because the graph shows the discoveries of multiple species after Darwin published his work. Keep (C). Choice (D) can be eliminated because there is nothing on the graph that indicates similarities or differences between species. The correct answer is (C).
51. **B** This question asks which statement is best supported by the graph. Eliminate anything that is inconsistent with the information in the graph. Choice (A) can be eliminated because only one fossil discovery is marked on the graph before 1859. Choice (B) is consistent with the graph, because there was less time between discovery and naming of the fossils in Tanzania than there was for the fossils discovered in Kenya. Keep (B). Choice (C) can be eliminated because one *Paranthropus* was discovered in Tanzania and another was discovered in Kenya. Choice (D) can be eliminated because it took scientists longer to name *Australopithecus garhi* than it did for them to name *Australopithecus afarensis*, even though the *garhi* species was found after the *afarensis*. The correct answer is (B).
52. **A** This question asks what can be supported about anthropologists’ depiction of the “March of Progress” based on the passage and the graph. Lines 65–70 say that *anthropologists once depicted human evolution as a version of the classic “March of Progress” image—a straight line from a crouching proto-ape...culminating in upright humans beings*. The text goes on to quote a contemporary biological anthropologist saying that it *was a fairly simple picture, but...it was a simplicity born of ignorance*. Choice (A) is consistent with both the graph and the passage, so keep it. Choice (B) can be eliminated because the text says that the image was *born of ignorance*. Choice (C) can also be eliminated because the image is incorrect, so it does not *prove* anything. Choice (D) can be eliminated because the image does not *undermine any discoveries*. The correct answer is (A).

## Section 2: Writing and Language

- D** The vocabulary is changing in the answer choices, so the question is testing word choice. Look for a word whose definition is consistent with the other ideas in the sentence. The sentence discusses *funding for the agency* and that there is a *debate* about it, so the definition should mean “topic” or “focus.” *Protagonist* means “the main character,” so eliminate (A). *Significance* means “importance” or “meaning,” so eliminate (B). *Discipline* can mean “punishment” or “branch of knowledge,” so eliminate (C). *Subject* means “topic,” so keep (D). The correct answer is (D).
- A** Verbs are changing in the answer choices, so the question is testing consistency of verbs. A verb must be consistent with its subject and with the other verbs in the sentence. The sentence says *while others object*, so the correct verb will be consistent with *object*, which is present tense. *Think* is consistent with *object*, so keep (A). *Thought* and *would think* are in the past tense, so eliminate (B) and (D). *Thinking* makes the idea incomplete, so eliminate (C). The correct answer is (A).
- C** Transitions are changing in the answer choices, so the question is testing consistency of transitions. The transition should connect the ideas in the previous and current sentences. The previous sentence discusses *critics* and *others* who *object to the nature of some of the projects that receive funding*. The current sentence says that *the agency provides important services* and *has had a notable impact on American culture*. The ideas in the sentences are opposite, so look for a transition that changes the direction of the ideas. *Therefore* and *likewise* keep the ideas in the same direction, so eliminate (A) and (B). *However* changes the direction, so keep (C). *For instance* introduces an example, so eliminate (D). The correct answer is (C).
- A** The number of words is changing in the answer choices, so the question is testing concision. First determine whether the phrases before *overlooked* are necessary. Removing the phrases does not change the meaning of the sentence, so the phrases are not necessary. Eliminate (B) and (D). *Oversight* is not consistent with *left behind*, so eliminate (C). The correct answer is (A).
- C** Punctuation is changing in the answer choices, so the question is testing STOP and GO punctuation. Use the Vertical Line Test to identify the ideas as complete or incomplete. Draw the vertical line between *Tutankhamen* and *and*. The phrase *Among the most notable projects that have been funded by the NEH over the last 50 years are the Ken Burns documentary The Civil War, the blockbuster Metropolitan Museum of Art exhibition “Treasures of Tutankhamen”* is an incomplete idea. The phrase *sixteen Pulitzer Prize-winning books* is an incomplete idea. STOP punctuation cannot be used for two incomplete ideas, so eliminate (A). Choice (B) places the STOP punctuation after *and*. Even with the new placement, both phrases are incomplete ideas, so eliminate (B). Comma placement in (C) and (D) is changing, so check for the four ways to use a comma. The sentence contains a list. The comma should go before *and*, so eliminate (D). The correct answer is (C).

6. **B** Verbs are changing in the answer choices, so the question is testing consistency of verbs. A verb must be consistent with its subject and with the other verbs in the sentence. The subject relating to the verb is *NEH grant money*, which is singular. This does not immediately eliminate any answer choices. The other verbs in the sentence are *argue* and *is*. *Which has* creates an incomplete idea, so eliminate (A). *Has* is consistent with the other verbs, so keep (B). *Having* and *to have* are not consistent with the other verbs, so eliminate (C) and (D). The correct answer is (B).
7. **D** The phrases are changing in the answer choices, so the question is testing word choice. There is also the option to DELETE; consider this choice carefully, as it's often the correct answer. The three choices—*likewise*, *in the same way*, and *comparably*—basically mean the same thing. The sentence already uses the word *similarly*, so there's no need to repeat the idea. The phrase should be deleted to make the sentence more concise. The correct answer is (D).
8. **C** Note the question! The question asks whether the sentence should be added, so it's testing consistency. If the content of the new sentence is consistent with the ideas surrounding it, then it should be added. The paragraph discusses the *NEH grant money's positive impact on local economies* and the example of *Jamestown* and the *new local tourist industry*. The new sentence discusses the history of Jamestown, which is not consistent with the ideas in the text. Therefore, the sentence should not be added. Eliminate (A) and (B). Keep (C) because it states that the new sentence blurs the focus of the paragraph. Eliminate (D) because it does not undermine the ideas in the paragraph. The correct answer is (C).
9. **A** Note the question! The question asks which choice sets up the quote, so it's testing consistency. The correct choice should be consistent with the idea in the quote. The quote says *Science and technology are providing us with the means to travel swiftly. But what course do we take? This is the question that no computer can answer*. Look for the choice that is consistent with the idea of caution about technology. Choice (A) is consistent, so keep it. There is no mention of the *humanities*, so eliminate (B). The quote does not discuss *funding*, so eliminate (C). There is no mention of *public art* in the quote, so eliminate (D). The correct answer is (A).
10. **C** The vocabulary is changing in the answer choices, so the question is testing word choice. Look for a word whose definition is consistent with the other ideas in the sentence. *Weather* refers to conditions in the atmosphere, while *whether* indicates multiple options, so eliminate (A) and (B). *Too* means “also,” so eliminate (D). The correct answer is (C).
11. **B** Note the question! The question asks where sentence 1 should be placed, so it's testing consistency. Determine the subject matter of the sentence, and find the other sentence that also discusses that information. Sentence 1 says that *we should not forget Seaborg's words*. Sentence 2 introduces *Glenn Seaborg* and his words. Therefore, sentence 1 should follow sentence 2. The correct answer is (B).

12. **D** The punctuation is changing in the answer choices, so the question is testing STOP and GO punctuation. Use the Vertical Line Test and identify the ideas as complete or incomplete. Draw the vertical line between *commonplace* and *a 2013 study*. The phrase *Tuition assistance programs are commonplace* is a complete idea. The phrase *a 2013 study showed that 61% of U.S. employers offered undergraduate tuition assistance as a benefit—but their goals and guidelines vary widely* is a complete idea. GO punctuation cannot be used between two complete ideas, so eliminate (B) and (C). Both STOP and HALF-STOP punctuation can be used so check to see if a dash is needed. Since *a 2013 study showed that 61% of U.S. employers offered undergraduate tuition assistance as a benefit* is an unnecessary idea, it needs a pair of dashes around it, similar to a pair of commas. The correct answer is (D).
13. **A** Verbs are changing in the answer choices, so the question is testing consistency of verbs. A verb must be consistent with its subject and with the other verbs in the sentence. The subject for the verb is *companies*, which is plural. *Sees* is singular and is not consistent with the subject, so eliminate (D). There are no other verbs in the sentence so check the sentences before and after. Other verbs in those sentences are *vary*, *are taking*, and *result*, which are in the present tense. *See*, which is also in the present tense, is consistent with the other verbs, so keep (A). *Seeing* and *have seen* are not consistent with the other verbs, so eliminate (B) and (C). The correct answer is (A).
14. **B** The number of words is changing in the answer choices, so the question is testing consistency and concision. The sentence contains a list; *improved morale*, *retention*, and the underlined item. Look for an answer choice that is consistent with the other two items and does not contain unnecessary words. Only (B) is consistent and concise. The correct answer is (B).
15. **D** Note the question! The question asks for a choice that establishes the argument that follows, so it's testing consistency. The following sentence says that *Some firms have instituted a requirement that employees receiving tuition benefits must stay with the company for a specific amount of time after completing their educations*. Look for an answer choice that is consistent with the argument. The argument does not discuss *cost*, *types of courses*, or *productivity*, so eliminate (A), (B), and (C). Requiring employees to *stay with the company* is a way to prevent employees from seeking *a position at a different company*, so the correct answer is (D).
16. **C** Transitions are changing in the answer choices, so the question is testing consistency of transitions. The transition should connect the ideas in the previous and current sentences. The previous sentence discusses *a requirement that employees receiving tuition benefits must stay with the company for a specific amount of time*. The current sentence says that *such clauses are hard to enforce*. The ideas in the sentences are opposite, so look for a transition that changes the direction of the ideas. *In any case*, *consequently*, and *additionally* keep the same direction, so eliminate (A), (B), and (D). *However* changes the direction of the ideas. The correct answer is (C).



17. **D** The punctuation is changing in the answer choices, so the question is testing STOP and GO punctuation. Use the Vertical Line Test and identify the ideas as complete or incomplete. Draw the vertical line between *leave* and *than*. The phrase *Over 80% of workers who receive tuition benefits from their employers feel an increased sense of loyalty stemming from the investment, and they are in fact less likely to leave* is a complete idea. The phrase *than the average employee is* is an incomplete idea. STOP punctuation cannot be used with an incomplete idea, so eliminate (B). The second phrase is not a list or an explanation, so there is no need for HALF-STOP punctuation. Eliminate (A). Check the reasons to use a comma. The sentence does not contain a list, so check for unnecessary information. The phrase *and they are in fact less likely to leave* cannot be removed from the sentence, so it is necessary. There is no reason to use a comma, so eliminate (C). The correct answer is (D).
18. **A** The number of words is changing, so the question is testing concision. Since all the choices discuss *loans* and basically mean the same thing, choose the answer choice that is most concise. The correct answer is (A).
19. **B** Punctuation is changing in the answer choices, so the question is testing STOP and GO punctuation. Use the Vertical Line Test and identify the ideas as complete or incomplete. Draw the vertical line between *goes* and *then*. The phrase *If an employee takes advantage of the optional benefit, the thinking goes* is an incomplete idea. The phrase *then he or she is likely to be a highly motivated and productive worker* is an incomplete idea. Only GO punctuation can be used between two incomplete ideas, so eliminate (C) and (D). Check to see if a comma is necessary. The phrase *the thinking goes* is unnecessary and needs a pair of commas around it. The correct answer is (B).
20. **D** The phrases are changing in the answer choices, so the question is testing precision and concision. There is also the option to DELETE; consider this choice carefully as it's often the correct answer. The three choices do not correctly connect the two ideas. The phrase should be deleted to make the sentence more concise. The correct answer is (D).
21. **B** The vocabulary in the phrases is changing in the answer choices, so the question is testing word choice. The correct choice will be consistent with the ideas and tone of the passage. Choices (A), (C), and (D) are too informal, so they are not consistent with the tone of the passage. The correct answer is (B).
22. **D** Note the question! The question asks for a description that is accurate based on the figure. Look at the figure and read the title and any labels. The figure shows a pyramid with four levels. Look for an answer choice that is consistent with the order of the levels. The base of the pyramid is *reliable source of talent*, so eliminate (A), (B), and (C). The correct answer is (D).
23. **B** Verbs are changing in the answer choices, so the question is testing consistency of verbs. A verb must be consistent with its subject and with the other verbs in the sentence. The other verb in the sentence is *have shown*, so the correct answer must be consistent with this verb. Only *have been* is consistent. The correct answer is (B).

24. **B** Note the question! The question asks for a choice that reinforces the definition of fast casual, so it's testing consistency. The paragraph states that *fast casual...generally refers to restaurants that offer the traditional quick preparation and counter service of fast food at a slightly higher price point, with a focus on fresh, high-quality ingredients*. Although fast casual has a slightly higher price point than fast food, no information is given about the cost of sit-down restaurants, so eliminate (A). *Higher quality and freshness of their ingredients* is consistent, so keep (B). There is no mention of *salads or burgers*, so eliminate (C). The definition does not discuss the *obesity epidemic*, so eliminate (D). The correct answer is (B).
25. **C** Punctuation is changing in the answer choices, so the question is testing STOP and GO punctuation. Use the Vertical Line Test and identify the ideas as complete or incomplete. Draw the vertical line between *quickly* and *driven*. The phrase *The chain grew quickly* is a complete idea. The phrase *Driven by customers who were attracted to its fresh menu and sustainably sourced ingredients* is an incomplete idea. STOP punctuation can only be used between two complete ideas, so eliminate (A) and (D). Between the colon and the comma, the comma is the correct choice because it continues the flow of the ideas, whereas the colon sets up a list or a cause and effect relationship, neither of which is present here. The correct answer is (C).
26. **D** Note the question! The question asks whether the sentence should be added, so it's testing consistency. If the content of the new sentence is consistent with the ideas surrounding it, then it should be added. The paragraph discusses the beginning of the fast casual movement and *Chipotle*. The new sentence discusses the *term fast casual* and *Horatio Lonsdale-Hands*, so it is not consistent with the ideas in the text; the sentence should not be added. Eliminate (A) and (B). Eliminate (C) because it does not entirely blur the focus of the paragraph, but rather adds extraneous details. Keep (D) because it does introduce a new figure in the movement. The correct answer is (D).
27. **D** The vocabulary is changing in the answer choices, so the question is testing word choice. Look for a word whose definition is consistent with the other ideas in the sentence. The sentence says that spending in the restaurant business declined for two years, so the definition should mean "consecutive" or "continuous." *Unbending* means "strict," so eliminate (A). *Linear* means "straight line," so eliminate (B). *Even* means "balanced," so eliminate (C). *Straight* is consistent with "consecutive." The correct answer is (D).
28. **D** Transitions are changing in the answer choices, so the question is testing consistency of transitions. The transition should connect the ideas in the previous and current sentences. The previous sentence says that *spending in the restaurant business declined*. The current sentence says that *during that same period, fast casual business grew by double digits*. The ideas in the sentences are opposite, so look for a transition that changes the direction of the ideas. *In fact*, *unsurprisingly*, and *in other words* keep the ideas in the same direction, so eliminate (A), (B), and (C). *In contrast* changes the direction, so the correct answer is (D).

29. **A** Commas are changing in the answer choices, so the question is testing the four ways to use a comma. The phrase *having sold its interest in the burrito business in 2006* is unnecessary information, so it should be surrounded by commas. Eliminate (B) because it contains no commas. Eliminate (C) and (D) because each contains only one comma. The correct answer is (A).
30. **D** Pronouns and apostrophes are changing in the answer choices, so the question is testing consistency of pronouns and apostrophe usage. A pronoun must be consistent in number with the noun it is replacing. The pronoun refers to the noun *company*, which is singular. Eliminate (A) and (B) because the pronouns are plural. When an apostrophe is attached to a pronoun, it indicates a contraction. The *buns* belong to the company, so the possessive pronoun is needed, which does not contain the apostrophe. The correct answer is (D).
31. **D** Transitions are changing in the answer choices, so the question is testing consistency of transitions. The transition should connect the ideas in the two parts of the sentence. The first part of the sentence introduces *one of the bigger problems of fast food*. The second part of the sentence names the problem: *lack of nutritional value*. Look for a transition that connects the example to the first part of the sentence. *Therefore* and *indeed* indicate a continuation, so eliminate (A) and (B). *For instance* is too general, so eliminate (C). *Specifically* indicates a particular example. The correct answer is (D).
32. **D** The punctuation and phrasing are changing in the answer choices, so the question is testing punctuation and precision. The sentence is a statement so it should end in a period; eliminate (A) and (B). The restaurants are not becoming *increasingly fast*, so eliminate (C). The critics *increasingly question*, so keep (D). The correct answer is (D).
33. **A** The number of words is changing in the answer choices, so the question is testing concision. Since all the choices discuss changes over time, choose the answer choice that is most concise. The correct answer is (A).
34. **B** Note the question! The question asks which choice best combines the two sentences, so it's testing precision and concision. Start with the most concise option, which is (B). Choice (B) is the most concise and there are no errors in consistency or precision. The correct answer is (B).
35. **C** The phrases are changing in the answer choices, so the question is testing word choice. The sentence discusses *a fight* that involved *the spectators* so the correct choice will mean "started." *Amidst* means "in the middle of" but doesn't indicate that the spectators were involved, so eliminate (A). *Brought* is the past tense of "bring," so eliminate (B). *Broke out among* is consistent, so keep (C). *Between* is used for two things or groups, but there are more than two spectators, so eliminate (D). The correct answer is (C).
36. **A** Note the question! The question asks for the choice that best establishes the main idea of the paragraph, so it's testing consistency. Read the paragraph to find out the main idea. The paragraph discusses the *dissonant nature* of the *music*, the *awkward, ungraceful movements of the dancers*, the *theme that may also have upset some viewers*, and the *negative reception*. The *audience reacting strongly*

- is consistent, so keep (A). There is no explanation for *why Stravinsky composed* the music, so eliminate (B). The police are mentioned in the previous paragraph but not in this one, so eliminate (C). The paragraph does not discuss *Russian folk traditions*, so eliminate (D). The correct answer is (A).
37. **D** Commas are one thing changing in the answer choices, so the question is testing the four ways to use a comma. Make sure to read all the way until the end of the sentence. The phrase *a pagan ritual in which a virgin sacrifices herself to the god of spring* is unnecessary information, so it should be surrounded by commas. Eliminate (A) and (C) because they contain no commas. *Being* is not needed, so eliminate (B). The correct answer is (D).
38. **C** Commas are changing in the answer choices, so the question is testing the four ways to use a comma. There are no lists or unnecessary information in the sentence. There should be a comma before the quote. The correct answer is (C).
39. **B** The phrases are changing in the answer choices, so the question is testing word choice. The sentence says that the *eyewitness accounts* are *contradictory*, so the phrase means “to understand.” *Sort of* means “not quite right,” which is not consistent, so eliminate (A) and (D). *To sort out* is consistent with “to understand,” so keep (B). *For sort out* is not a correct phrase, so eliminate (C). The correct answer is (B).
40. **D** Transitions are changing in the answer choices, so the question is testing consistency of transitions. The transition should connect the ideas in the previous and current sentences. The previous sentence says that *descriptions of the level of disruption and violence increase as the accounts get further away from the actual event*. The current sentence says that *it's likely that stories of the riot have gotten exaggerated over time*. The ideas in the sentences are the same, so look for a transition that keeps the same direction of the ideas. *On the other hand* changes the direction, so eliminate (A). *As a result* indicates a consequence of an action, which is inconsistent, so eliminate (B). *At the same time* refers to events occurring simultaneously, which is not consistent, so eliminate (C). *In other words* is consistent with keeping the same ideas. The correct answer is (D).
41. **A** Note the question! The question asks for an answer choice that helps to explain the different views of the traditionalists and modernists, so it's testing consistency. Look for a choice that is consistent with the different views of the two groups. Choice (A) mentions both traditionalists and modernists and their different views of the Eiffel Tower, so keep (A). Choices (B), (C), and (D) do not mention the traditionalists and modernists, so eliminate them. The correct answer is (A).
42. **D** The phrases are changing in the answer choices, so the question is testing precision. The sentence says that *Diaghilev likely caused members of both groups*, which indicates an action that should have a result. The correct answer will complete the idea. Only *to believe* correctly finishes the idea by providing the result. The correct answer is (D).

43. **C** Note the question! The question asks for the choice that signals that the result was *expected* by the author, so it is testing precision. *Not unsurprising* is another way of saying “surprising,” so eliminate (A). Both *surprising* and *unusual* indicate that the result was unexpected, so eliminate (B) and (D). The correct answer is (C).
44. **B** Note the question! The question asks where sentence 5 should be placed, so it’s testing consistency. Determine the subject matter of the sentence, and find the other sentence that also discusses that information. Sentence 5 introduces *Serge Diaghilev*. Sentence 2 says that *he actually planted someone to start shouting*. Since there is no noun that *he* can refer to, sentence 5 must come before sentence 2. The correct answer is (B).

### Section 3: Math (No Calculator)

1. **D** The question asks for an equivalent expression. There is a variable in the answer choices, which usually indicates an opportunity to plug in. However, the algebra is straightforward here, so it is probably better to solve this one. Start by distributing the 2 to get  $10 + 2x - 14$ , then combine like terms to get  $2x - 4$ . The correct answer is (D).
2. **C** The question asks for the ordered pair that satisfies the system of equations. Because there are possible ordered pairs in the choices, plug in the answers. Because the second equation is simpler, begin by plugging each of the choices into that equation. For (A), this becomes  $0 = -7 + 7$ . This is true, so keep (A). For (B), this becomes  $27 = 4 + 7$ . This is false, so eliminate (B). For (C), this becomes  $7 = 0 + 7$ . This is true, so keep (C). For (D), this becomes  $9 = -18 + 7$ . This is false, so eliminate (D). Plug each of the two remaining choices into the first equation. For (A), this becomes  $3(0) - \frac{-7}{3} = 21$ . This is false, so eliminate (A). For (C), this becomes  $3(7) - \frac{0}{3} = 21$ . This is true, so keep (C). The correct answer is (C).
3. **B** The question asks for the meaning of the variable  $b$  in the situation. Start by labelling the parts of the equation. The variable  $a$  represents *the number of hours...doing homework each week*, and the number 15 represents *hours doing homework or watching television each week*. This makes the equation *number of hours doing homework + b = hours doing homework or watching television each week*. Next, go through the answers and use POE. Choice (A) relates doing homework and watching television to each other, but no information is given about the specific number of hours spent on each activity. Eliminate (A). Choice (B) fits the labeling of the equation; keep (B). Choice (C) can be eliminated because the question states that this is represented by  $a$ . Choice (D) can be eliminated because the question states that this is 15. The correct answer is (B).

4. **A** The question asks for the value of the computer after 6 years. Begin by ballparking. Since 6 is more than half of 9, after 6 years, the computer will have lost more than half its value. Thus, the value of the computer must be less than half of its original value. Half of the original value is  $\$4,590 \div 2 = \$2,295$ . Eliminate (B), which is exactly half, and (C) and (D), which are more than half. The only value that remains is (A), so it must be correct. To verify the value of the computer after 6 years, determine the constant rate by which it decreases in value. Since the computer has no monetary value after 9 years, it takes 9 years for it to lose its entire value of \$4,590. Therefore, the rate of decrease in value is  $\frac{\$4,590}{9 \text{ years}} = \$510$  per year. After 6 years, the value of the computer decreases by  $\$510 \times 6 = \$3,060$ . The value after 6 years is obtained by subtracting this amount from the original value to get  $\$4,590 - \$3,060 = \$1,530$ . The correct answer is (A).
5. **B** The question asks for an equivalent expression. Rather than getting mixed up with all the negatives, work using Bite-Sized Pieces and use POE. All four answer choices have different  $i$  terms, so start there. The first part of the expression has  $10i$ , and the second part has  $-3i$ . There is a subtraction sign in between, so the  $i$ -terms become  $10i - (-3i)$ , or  $10i + 3i = 13i$ . The only answer with a positive  $13i$  is (B). The correct answer is (B).
6. **D** The question asks for the value of the function for a given  $x$  value. To find  $f(-2)$ , plug  $-2$  into the function in place of  $x$ . Therefore,  $f(-2) = \frac{(-2)^2 + 4(-2) - 8}{-2 - 2}$ . Simplify to get  $f(-2) = \frac{4 + (-8) - 8}{-4} = \frac{-4 - 8}{-4} = \frac{-12}{-4} = 3$ . The correct answer is (D).
7. **D** The question asks for the system of inequalities that describes the situation. Because there is a lot of information in the question, solve using Bite-Sized Pieces. Start with the most straightforward piece. The question states that Heinrich must buy at least 20 shares of Stock X. The term *at least* translates to  $\geq$ . Since  $a$  represents the number of shares of Stock X, the correct answer must include  $a \geq 20$ . Eliminate the choices that do not include this inequality, which are (A) and (B). Look at the two remaining choices and find the differences between them. The only difference between (C) and (D) is that (C) includes the inequality  $a + b \leq 100$ , while (D) includes the inequality  $a + b \geq 100$ . According to the question, Heinrich must buy at least 100 total shares. Therefore, the total number of shares must be  $\geq 100$ . Eliminate (C). The correct answer is (D).
8. **A** The question asks for an equivalent expression. Since there is a variable in the choices, plug in. Let  $x = 5$ . If  $x = 5$ , then the original expression becomes  $x^2 - 8x + 5 = 5^2 - 8(5) + 5$ . Apply the exponent and multiply to get  $25 - 40 + 5$ , which equals  $-10$ . The target value is  $-10$ ; circle it. Go through each choice, make  $x = 5$ , and eliminate any that doesn't equal  $-10$ . Choice (A) is  $(5 - 4)^2 - 11$ , which is  $1^2 - 11$ . This equals  $1 - 11$  or  $-10$ . Keep (A), but check the remaining answers just in case. Choice (B) is  $(5 - 4)^2 + 11$ , which is  $1^2 + 11$ . This equals  $1 + 11$  or  $12$ . Eliminate (B). Choice (C) is  $(5 + 4)^2 - 11$ , which is  $9^2 - 11$ . This equals  $81 - 11$  or  $70$ . Eliminate (C). Choice (D) is  $(5 + 4)^2 + 11$ , which is  $9^2 + 11$ . This equals  $81 + 11$  or  $92$ . Eliminate (D). The correct answer is (A).

9. **B** The question asks for the least number of photographs Juliet must sell. Since the question asks for a specific value and there are numbers in the answer choices, plug in the answers. Start with the smallest value, which is in (A). According to the question, Juliet sells the first 20 photographs for \$10 each. Therefore, she takes in a total of  $20 \times \$10 = \$200$ . If Juliet sells an additional 18 photographs for \$15 each, she will bring in an additional  $18 \times \$15 = \$270$ . Therefore, she brought in a total of  $\$200 + \$270 = \$470$ . She earns a profit of 80% of her revenues, so she earns  $\frac{80}{100} \times \$470$ , which is  $\frac{4}{5} \times \frac{\$470}{1}$ . This can be simplified to  $\frac{4}{1} \times \frac{\$94}{1}$ , which equals \$376. She must earn at least \$460 in profit, so this answer is too small. Eliminate (A). Try (B). She still makes \$200 on the first 20 photographs. If she sells 20 additional photographs, she takes in an additional  $20 \times \$15 = \$300$ , for a total of  $\$200 + \$300 = \$500$  in revenues. She earns a profit of 80% of the revenues, which is  $\frac{80}{100} \times \$500 = \frac{4}{5} \times \$500 = \$400$ . This matches the goal of *at least \$400*. Therefore, the correct answer is (B).
10. **A** The question asks for an equivalent expression. Solve this question using Bite-Sized Pieces, working with one variable at a time. Because the expression divides variables with exponents, use the MADSPM rule of Division-Subtract. Subtract the exponents on the  $p$  terms to get  $\frac{p^{\frac{1}{4}}}{p^{-2}} = p^{\frac{1}{4} - (-2)} = p^{\frac{1}{4} + 2}$ . Both parts of the exponent are positive, so the  $p$  term should be in the numerator. Unfortunately, this doesn't eliminate any answers. MADSPM rules indicate that Addition means Multiplication, and a fractional exponent is a power over a root. Therefore, the numerator must include  $p^2$  multiplied by  $\sqrt[4]{p}$ . Only (A) has  $p^2 \sqrt[4]{p}$  in the numerator. Eliminate the choices that do not include this: (B), (C), and (D). Only one choice remains, so there is no need to continue. However, to see why (A) is correct, follow the same process for  $q$ . Subtract the exponents in  $\frac{q^{-3}}{q^{\frac{1}{2}}}$  to get  $q^{-3 - \frac{1}{2}}$ . Both parts of the exponent are negative, so  $q$  term should be in the denominator. To determine what the denominator should be, factor a negative from the exponent to get  $q^{-\left(3 + \frac{1}{2}\right)}$ . Once again, use MADSPM rules to get that the denominator must be  $q^3$  multiplied by  $\sqrt[2]{q}$ . Therefore, the expression simplifies to  $\frac{p^2 \sqrt[4]{p}}{q^3 \sqrt[2]{q}}$ . The correct answer is (A).

11. **C** The question asks for the interval containing the  $x$ -coordinate of the vertex of a parabola. The vertex of a parabola is always on the axis of symmetry, which is located halfway between the roots of the parabola. To find the roots, set  $g(x) = 0$  to get  $0 = (x - 2)(x - 4)$ . Set both factors equal to 0 to get  $x - 2 = 0$  and  $x - 4 = 0$ . If  $x - 2 = 0$ , then  $x = 2$ . If  $x - 4 = 0$ , then  $x = 4$ . Since the axis of symmetry is halfway between the roots, it is  $x = \frac{2+4}{2} = \frac{6}{2} = 3$ . Therefore, the  $x$ -coordinate of the vertex is 3. Select the choice that includes  $x = 3$ . The correct answer is (C).
12. **D** The question asks for a factor of a polynomial. The equation is given as  $xa^3 + ya^2 + za = 0$ , but it is not necessary to deal with the equation in this question because the question asks for a factor of the equation, not to solve for  $x$ ,  $y$ , or  $z$ . An equation is divisible by its factors, which means the factors multiply to each other to give the equation. If the equation has roots  $-6$ ,  $0$ , and  $4$ , then when  $a = -6$ ,  $0$ , or  $4$ , the equation is true (in this case, the left side is equal to 0). In order to make the left side equal to zero, at least one of the factors must be equal to zero. Therefore, to find a factor of the equation, plug the roots into the answer choices for  $a$  until one of the choices equals 0. It's easier to use positive numbers, so start with 4. Plugging 4 into each of the answer choices for  $a$  doesn't give 0 for any answer, so try  $-6$  instead. When  $a = -6$ , (D) equals  $-6 + 6$ , which is 0. This means that  $a + 6$  is a factor of the equation. The correct answer is (D).
13. **B** The question asks for the value of  $c$  when an expression containing  $c$  is rewritten into another form. Therefore, these two forms can be set as equal to get  $\frac{1}{2}x^2 - 5 = \frac{1}{2}(x + c)(x - c)$ . Since this is an equation with  $x$  and  $c$ , and the question asks for  $c$ , plug in for  $x$ . Let  $x = 2$ . Plug  $x = 2$  into the equation to get  $\frac{1}{2}(2^2) - 5 = \frac{1}{2}(2 + c)(2 - c)$ . Simplify the left side to get  $\frac{1}{2}(4) - 5 = \frac{1}{2}(2 + c)(2 - c)$ , then multiply to get  $2 - 5 = \frac{1}{2}(2 + c)(2 - c)$ . Subtract on the left side to get  $-3 = \frac{1}{2}(2 + c)(2 - c)$ . Multiply both sides by 2 to get  $-6 = (2 + c)(2 - c)$ . Use FOIL on the right side to get  $-6 = 4 - c^2$ . Subtract 4 from both sides to get  $-10 = -c^2$ . Divide both sides by  $-1$  to get  $10 = c^2$ . Take the square root of both sides to get  $\pm\sqrt{10} = c$ . Since the question specifies that  $c$  is a positive constant, the only possible value of  $c$  is  $\sqrt{10}$ . It is also possible to plug in the answers and simplify the equation, but that might be more time-consuming. The correct answer is (B).



14. **A** The question asks for an equivalent expression. Because there is a variable in the question and choices, plug in. Choose a value that makes the arithmetic easier. Let  $z = -1$ , because the denominators of most of the fractions will equal 1. If  $z = -1$ , then the original expression becomes  $\frac{z^2 + 7z - 3}{z + 2} = \frac{(-1)^2 + 7(-1) - 3}{-1 + 2}$ , which is equal to  $\frac{1 - 7 - 3}{1} = -9$ . This is the target value; circle it. Go through each choice, plugging in  $z = -1$  and eliminating any choice that is not equal to  $-9$ . Choice (A) is  $-1 + 5 - \frac{13}{-1 + 2} = 4 - 13 = -9$ . Keep (A), but check the remaining answer just in case. Choice (B) is  $-1 + 5 - \frac{7}{-1 + 2} = 4 - 7 = -3$ . Eliminate (B). Choice (C) is  $-1 + 9 - \frac{21}{-1 - 2} = 8 + 7 = 15$ . Eliminate (C). Choice (D) is  $-1 + 9 - \frac{15}{-1 - 2} = 8 + 5 = 13$ . Eliminate (D). The correct answer is (A).
15. **D** The question asks for an inequality that shows the allowable depth of a pool. Set up an inequality that describes the restriction. Each of the choices indicates that  $0 < a$ , so it is only necessary to determine the upper limit of the inequality. The sum of the length of the pool and the perimeter of the vertical side cannot exceed 200 meters. The perimeter is  $2w + 2d$ , so the sum of the length and the perimeter is  $l + 2w + 2d$ . The term *cannot exceed* translates to  $\leq$ , so  $l + 2w + 2d \leq 200$ . The length of the pool is 75 and the depth is  $a$ , so  $75 + 2w + 2a \leq 200$ . The width is 1.5 times the depth, so  $75 + 2(1.5a) + 2a \leq 200$ . This simplifies to  $75 + 2a + 3a \leq 200$ . Combine like terms to get  $75 + 5a \leq 200$ , then subtract 75 from both sides to get  $5a \leq 125$ . Divide both sides by 5 to get  $a \leq 25$ . The correct answer is (D).
16. **10** The question asks for the degree measure of  $\angle BCD$ , which is part of triangle  $BCD$ . First, mark the information given by the question. Mark  $AB = BD = CD$  and  $AD = 15$  in the figure. Since  $AB = BD$ , triangle  $ABD$  is isosceles. Therefore,  $\angle BDA$  is also equal to  $20^\circ$ . Since  $\angle BDC$  is adjacent to  $\angle BDA$ , forming a straight angle, the measures of the two angles have a sum of  $180^\circ$ . This means that  $\angle BDC = 180^\circ - 20^\circ = 160^\circ$ . Since  $BD = DC$ , triangle  $BCD$  is also isosceles. Label  $\angle BCD$  and  $\angle CBD$  as  $x$ . There are  $180^\circ$  in a triangle, so  $160^\circ + x + x = 180^\circ$ . Therefore,  $2x = 20^\circ$  and  $x = 10^\circ$ . The correct answer is 10.
17. **7** The question asks for the value of an expression. There are two possible approaches to this question. One is to solve for  $b$ , and then plug that value into the expression  $5 - b$ . The other approach is to notice that the given expression  $15 - 3b = 21$  can be factored to  $3(5 - b)$ . Therefore, the original equation can be rewritten in form  $3(5 - b) = 21$ . Divide both sides by 3 to get  $5 - b = 7$ . Using either approach, the correct answer is 7.
18. **6** The question asks for the value of  $k$ , which is the  $y$ -coordinate of a point on a line. Use the other two points to find the equation of the line, in the form  $y = mx + b$ , where  $m$  is the slope and  $b$  is the  $y$ -intercept. To find the slope, use formula  $m = \frac{y_2 - y_1}{x_2 - x_1}$  to get  $m = \frac{12 - 0}{0 - (-4)}$ , which is  $\frac{12}{4}$  or 3. Plug  $m = 3$  into the line equation to get  $y = 3x + b$ . The  $y$ -intercept is the point where the line crosses

the  $y$ -axis, or where  $x = 0$ . The question gives this value as 12, so the full equation of the line is  $y = 3x + 12$ . To find the value of  $k$ , plug  $(-2, k)$  into the equation to get  $k = 3(-2) + 12$ . Simplify the right side to get  $k = -6 + 12 = 6$ . The correct answer is 6.

19. **8,244** The question asks for the value of  $d - c$ , where  $d$  and  $c$  are coefficients in an equivalent form of the given expression. To simplify the expression, start by distributing 10 to get  $50x^2 - 1,500 + 9,844 + 50x^2$ . Combine like terms to get  $100x^2 + 8,344$ . Since the expression is now in the form  $cx^2 + d$ ,  $c = 100$  and  $d = 8,344$ . The value of the expression  $d - c$  is  $8,344 - 100 = 8,244$ . The correct answer is 8,244.
20. **540** The question asks for the value of  $n$ , which is the number of degrees in an angle measuring  $3\pi$  radians. To convert from degrees to radians, use the fact that 180 degrees is equal to  $\pi$  radians. Set up the proportion  $\frac{n^\circ}{3\pi \text{ radians}} = \frac{180^\circ}{\pi \text{ radians}}$ . Cross-multiply to get  $540\pi = \pi n$ . Divide both sides by  $\pi$  to get  $n = 540$ . The correct answer is 540.

## Section 4: Math (Calculator)

1. **B** The question asks for the maximum number of times a homeowner can edge his lawn given a certain fuel requirement. Use proportions to determine the maximum number. There are 1,000 milliliters per 1 liter, and he has 8 liters of fuel. Set up a proportion to find how many milliliters of fuel he has:  $\frac{1,000 \text{ milliliters}}{1 \text{ liter}} = \frac{x \text{ milliliters}}{8 \text{ liters}}$ . Cross-multiply to get  $x = 8,000$ . Therefore, he has 8,000 milliliters of fuel. Next, set up a proportion to find how many times he can edge his lawn if the edger uses 160 milliliters of fuel each time:  $\frac{160 \text{ milliliters}}{1 \text{ time}} = \frac{8,000 \text{ milliliters}}{y \text{ times}}$ . Cross-multiply to get  $160y = 8,000$ . Divide both sides by 160 to get  $y = 50$ . The correct answer is (B).
2. **C** The question asks for the fraction of the students in Dr. Soper's class that chose to be graded on the lab report and final exam. A fraction is defined as  $\frac{\text{part}}{\text{whole}}$ . For this question, the "part" is the number of Dr. Soper's students who chose to be graded on the lab report and final exam, which is 3. The "whole" is Dr. Soper's class total, which is 20. Therefore, the fraction of Dr. Soper's class that chose to be graded on the lab report and final exam is  $\frac{3}{20}$ . The correct answer is (C).

3. **D** The question asks for an equivalent expression to the one given. There are variables in the answer choices, so plugging in is an option. However, the question is straightforward enough to solve without plugging in. Use Bite-Sized Pieces and Process of Elimination. Start with the  $a^2$  terms. Combine the terms:  $-a^2 - (2a^2) = -3a^2$ . Eliminate (A) and (B). Next, work the numbers:  $4 - (-6)$ , which is  $4 + 6 = 10$ . Eliminate (C). The correct answer is (D).
4. **B** The question asks for the inequalities satisfied by the ordered pair  $(3, -1)$ , so make  $x = 3$  and  $y = -1$  in each of the inequalities. Roman numeral (I) becomes  $3 + 3(-1) > 0$ , which is  $3 + (-3) > 0$  or  $0 > 0$ . This is false, so eliminate (A) and (C), which both contain (I). Both remaining answers include Roman numeral (II), so try Roman numeral (III). That inequality becomes  $3 + (-1) < 0$ , which is  $2 < 0$ . This is false, so eliminate (D). The correct answer is (B).
5. **A** The question asks for an inference that can be made from a given survey. For questions like this, stick closely to the results of the survey and use Process of Elimination. Choice (A) concludes that few people who like working alone will be unhappy doing this task, which closely matches the group chosen (*a group of people who indicated that they preferred to work alone*) and the results (*5% stated they were unhappy while doing the task*). This answer sticks closely to the survey; keep (A). Choice (B) makes an inference about people who do not like working alone; however, the survey collected data only on those who do like working alone, so there is no support for (B); eliminate it. Choices (C) and (D) are about people in general and whether they are working alone, but the survey considered only those people who like working alone; eliminate (C) and (D). The correct answer is (A).
6. **C** The question asks for a true statement, so go through the answers and use Process of Elimination. Choice (A) compares the pH of two wells, one with half as much bicarbonate as the other, so choose two points on the scatterplot. The well with approximately 150 ppm of bicarbonate has a pH of 7.6, and the well with approximately 75 ppm of bicarbonate has a pH of 8. Since 8 is not twice 7.6, this statement is false; eliminate (A). Choice (B) says that wells with more bicarbonate tend to have a higher pH, but according to the line of best fit, pH decreases as bicarbonate increases; eliminate (B). Choice (C) is the opposite of (B) and is supported by the downward trend of the line of best fit; keep (C). Choice (D) is disproven by the clear trend shown by the line of best fit; eliminate (D). The correct answer is (C).
7. **B** The question asks for the pH of a well with a bicarbonate concentration of 225 ppm, so look it up. Go along the horizontal axis to 225 ppm, and go up to the line of best fit. Now trace across the grid line to the vertical axis. It hits the vertical axis between 7.2 and 7.4, so the pH is approximately 7.3. The correct answer is (B).

8. **B** The question asks for a specific value, so plug in the answers. It is easy to plug in a value of 0, so start with (C). The value of  $y$  is given in the question, so if  $k = 0$ , the equation becomes  $25 = [(0)(-2) - 1]^2$ . Multiply in the parentheses to get  $25 = (0 - 1)^2$ , which is  $25 = (-1)^2$  or  $25 = 1$ . This is not true, so eliminate (C). It might not be clear if a larger or smaller number is needed, so pick a direction to go in. Try (B). If  $k = -3$ , the equation becomes  $25 = [(-3)(-2) - 1]^2$ . Multiply in the parentheses to get  $25 = (6 - 1)^2$ , which is  $25 = 5^2$  or  $25 = 25$ . This is true. The correct answer is (B).
9. **A** The question asks for the number of *seconds* Andrew waits for the weight rack. Start by converting 30 minutes to seconds by setting up a proportion:  $\frac{1 \text{ minute}}{60 \text{ seconds}} = \frac{30 \text{ minutes}}{x \text{ seconds}}$ . Cross-multiply to get  $x = 1,800$  seconds. Next, take 35% of 1,800 seconds by multiplying:  $\frac{35}{100} \times 1,800$  or  $0.35 \times 1,800 = 630$  seconds. The correct answer is (A).
10. **C** The question asks for the value of  $x - yz$  with the given equation. Try to isolate those terms. Start by subtracting 2 from both sides to get  $8x - 8yz = 72$ . Every term is divisible by 8, so divide both sides by 8 to get  $x - yz = 9$ . Another option is to plug in. Make  $y = 2$  and  $z = 3$ , so the equation becomes  $8x - 8(2)(3) + 2 = 74$ . Simplify to get  $8x - 48 + 2 = 74$  or  $8x - 46 = 74$ . Add 46 to both sides to get  $8x = 120$ , then divide both sides by 8 to get  $x = 15$ . Therefore,  $x - yz = 15 - (2)(3) = 15 - 6 = 9$ . The correct answer is (C).
11. **C** The question asks for a specific value and there are numbers in the answer choices, so plug in the answers. Choice (C) is easier to work with than (B), so start with (C). If the original weight of the steak is 10.00 ounces, then the weight of the fat trimmed off would be 12% of 10.00, which is  $\frac{12}{100} \times 10.00$  or  $0.12 \times 10.00 = 1.20$  ounces. Subtract this from 10.00 to find the weight after trimming the fat:  $10.00 - 1.20 = 8.80$  ounces. This matches the information in the question. The correct answer is (C).
12. **D** The question asks for a system of equations that models a certain situation. Use Bite-Sized Pieces, translate from English to math, and use Process of Elimination. Start with the most straightforward piece of information. The backpacker uses *a total of 10 granola bars and packets of peanut butter*, and  $g$  represents granola bars and  $p$  represents packets of peanut butter. This means that  $g + p = 10$ . This is not part of any answer choice. In the answer choices, look at the equations that have the number 10. Choices (A) and (B) include the equation  $g - p = 10$ . This equation is definitely not the same as  $g + p = 10$ . However, (C) and (D) include the equation  $g = 10 - p$ . Add  $p$  to both sides of the equation to get  $g + p = 10$ , which matches the translation. Eliminate (A) and (B). Next, compare the remaining answer choices. Choices (C) and (D) only differ by what  $g$  and

- $p$  are multiplied by; both remaining equations equal 1,660, which is the *total...food calories*. The question states that *a packet of peanut butter has 90 food calories*, so 90 should be multiplied by  $p$ , not  $g$ . Eliminate (C). The correct answer is (D).
13. **D** The question asks for the number of boards needed to cover a certain floor width. Set up a proportion. Be sure to match the labels on the numerators and denominators:  $\frac{10 \text{ boards}}{7\frac{3}{4} \text{ feet}} = \frac{x \text{ boards}}{32 \text{ feet}}$ . Cross-multiply to get  $7\frac{3}{4}x = 320$ . Convert  $7\frac{3}{4}$  to 7.75 to make the division easier. Then divide both sides by 7.75 to get  $x \approx 41.3$ . The question asks for the closest answer. The correct answer is (D).
14. **A** The question asks for the statement that is NOT true given the figure. Start by working the figure. The figure shows the time, in hours, along the horizontal axis and the distance from home, in kilometers, along the vertical axis. Note that the scales on each axis are different. Next, read the final question. The question asks for what is NOT true, so work each answer choice and eliminate any choice that IS true. Choice (A) states that George's distance from home increased at a constant rate for the first hour; however, the distance increased along a curved line, whereas a constant increase would result in a straight line. Furthermore, the increase is only for the first 30 minutes; the distance from home decreases after 30 minutes. Therefore, (A) is not true. This is likely the correct answer, but check the remaining ones to be sure. To check (B), look for the highest vertical value, which is at 0.5 hours. This is in the first hour, so (B) is true; eliminate it. For (C), a constant distance from home would appear as a horizontal line in the graph. The graph is horizontal between 2 and 3 hours, so the distance from home was constant for one hour. Choice (C) is true; eliminate it. To check (D), go through the graph and add up the time intervals George's distance from home was increasing and check that total against the total time intervals that his distance from home was decreasing. His distance from home was increasing from 0 to 0.5 hours, from 1.5 to 2 hours, and from 3 to 4.5 hours, for a total of 2.5 hours. His distance from home was decreasing from 0.5 to 1.5 hours and 4.5 to 5 hours, for a total of 1.5 hours. Choice (D) is true; eliminate it. The correct answer is (A).
15. **C** The question asks for the value of  $a$  in the given diagram. Start by ballparking any answer choice that clearly doesn't fit the figure. The angles with degree measure  $a$  are greater than the angle labeled  $60^\circ$ , so eliminate (A) and (B). The sum of the angles intersecting in the circle is 360 degrees. Therefore,  $a + a + a + 60 = 360$ . Solve by first combining like terms to get  $3a + 60 = 360$ . Subtract 60 from both sides to get  $3a = 300$ . Divide both sides by 3 to get  $a = 100$ . The correct answer is (C).
16. **C** The question asks what the slope represents in the graph of a certain situation. When asked about the meaning of a constant or variable in context, start by reading the final question. In the given equation, the slope is the coefficient on the  $x$  term:  $-75$ . Next, label the information in the equation. The variable  $y$  represents *amount of money remaining*, and the variable  $x$  is *days after the start of the fall semester*. Therefore, the equation is *amount of money remaining* =  $-75(\text{days after the start$

of the fall semester) + 5,000. Next, go through the answer choices using Process of Elimination. Choice (A) references the total amount, which is  $y$ , not the slope. Eliminate (A). Choice (B) refers to the number 5,000, but the slope of the equation is  $-75$ . Eliminate (B). Choice (C) fits the equation;  $-75$  is multiplied by the number of days since the beginning of the semester, so it would be consistent that Bo spent \$75 per day. Keep (C). Choice (D) refers to the amount of money Bo earned over the summer. However, that is the starting point and wouldn't need to be multiplied by the number of days. Also, slope is a rate of change, and the amount he made over the summer is fixed. Eliminate (D). The correct answer is (C).

17. **D** The question asks about the *account that contains the least amount of money*, so look it up. The scatterplot shows the interest rate in percent along the horizontal axis and the amount in the account along the vertical axis. The point that represents the account with the least money is the point that is closest to the bottom of the graph, which is at about 2.3 percent and \$1,000. The question asks for the *difference of the actual amount and the amount predicted by the line of best fit*. Trace up from the point to the line of best fit. Then, trace horizontally to the vertical axis to get a value of about \$2,200, making the difference  $2,200 - 1,000 = \$1,200$ . The question asks for the answer choice that is the closest. The correct answer is (D).
18. **B** The question asks for the value of  $x - y$  given a system of equations. Start by multiplying both sides of the first equation by 3 to get  $x = 12$ . Next, plug  $x = 12$  into the second equation to get  $12 + y = 32$ . Subtract 12 from both sides to get  $y = 20$ . The question asks for the value of  $x - y$ , which is  $12 - 20$  or  $-8$ . The correct answer is (B).
19. **B** The question asks for the predicted increase in bounce height for every 100 centimeters in drop height, so choose two points from the line of best fit. At a drop height of 0 centimeters, the line of best fit gives a bounce height of 0 centimeters, and at a bounce height of 200 centimeters, the line of best fit gives a bounce height of about 40 centimeters. Therefore, the increase in drop height of  $200 - 0 = 200$  centimeters gives an increase in bounce height of  $40 - 0 = 40$  centimeters. Use a proportion to find the increase in bounce height for 100 centimeters:
- $$\frac{40 \text{ cm bounce height}}{200 \text{ cm drop height}} = \frac{x \text{ cm bounce height}}{100 \text{ cm drop height}}$$
- Cross-multiply to get  $4,000 = 200x$ . Divide both sides by 200 to get  $x = 20$ . The correct answer is (B).
20. **C** The question asks for  $w$ , and the answer choices are all equations solved for  $w$ , so isolate  $w$  in Formula B. Start by multiplying both sides by 5 to get  $5BMI = 4w - 100$ . Next, add 100 to both sides to get  $5BMI + 100 = 4w$ . Divide both sides by 4 to get  $\frac{5BMI + 100}{4} = w$ . The correct answer is (C).

21. **B** The question asks for an expression equivalent to  $4w - 100$ , and it states that both formulas give the same value for *BMI*. Therefore, the left sides of each equation are equal, so set the right sides equal and solve for  $4w - 100$ . The equation becomes  $\frac{w}{b^2} = \frac{4w - 100}{5}$ . Isolate  $4w - 100$  by multiplying both sides by 5 to get  $\frac{5w}{b^2} = 4w - 100$ . Be sure to read the final question! The question asks for  $4w - 100$ , so the correct answer is (B).
22. **C** The question asks for the meaning of the number 20 in the context of the function. Label the parts of the function.  $C(h)$  represents *the number of bacteria colonies* and  $h$  represents *hours*, so the function becomes *number of bacteria colonies* =  $3^{\text{hours}} - 2(\text{hours}) + 20$ . Next, go through the answers and use Process of Elimination. The number 20 is not affected by *hours*, so it cannot represent a rate of growth; eliminate (A) and (B). Next, plug in. Choice (C) asks about the initial number of colonies, so make  $h = 0$ . The function becomes  $C(0) = 3^0 - 2(0) + 20$ , which is  $C(0) = 1 - 0 + 20$  or  $C(0) = 21$ . This fits (C). There's no way to determine the final number of bacteria colonies because the final time is not given; eliminate (D). The correct answer is (C).
23. **A** The question asks for the *difference between the median percent of agricultural land for these 9 countries* and the median for all countries, which is given as 34.95%. Find the median of the 9 countries given by crossing out the greatest and least values in pairs until only one value remains. Number the countries in order of increasing percent of land area. Then cross out in pairs of the highest and lowest numbers on the list. Cross out Greenland and Mexico, Canada and Turkey, Russian Federation and United States, and Latvia and New Zealand. The country remaining, Brazil, is the median. Therefore, the median percentage is 33.8. Find the difference by subtracting:  $34.95 - 33.8 = 1.15\%$ . The correct answer is (A).
24. **B** The question asks for the combined volume of the figurines and pellets in the box. Find the volume of the box and subtract the volume of the air in the box. To find the volume of the box, write down the formula for the volume of a rectangular solid:  $V = lwh$ . Next, plug in the given information into the formula. The question gives the area of the base of the box rather than the length and the width. There is not enough information to determine the length and width of the box, but length times width will equal the base of the box. Therefore, it is possible to plug in 4.4 for  $lw$  and 6.5 for  $h$  to get  $V = (4.4)(6.5)$ , which is  $28.6 \text{ in.}^3$ . Finally, subtract the volume of the air:  $28.6 - 8.0 = 20.6 \text{ in.}^3$ . The correct answer is (B).

25. **D** The question asks for the equation that models a certain situation. Use **Bite-Sized Pieces** and **Process of Elimination**. Because the GDP is shrinking a certain percentage per year, the answer should use the exponential growth and decay formula. That formula is  $\text{final amount} = \text{original amount}(1 \pm \text{rate of change})^{\text{number of changes}}$ , where *rate of change* is expressed as a decimal. Eliminate (A) and (C) because they do not have exponents and therefore are not in this form. The difference between (B) and (D) is *rate of change*. The value 2.6% expressed as a decimal is  $\frac{2.6}{100}$  or 0.026. Eliminate (B). The correct answer is (D).
26. **A** The question asks for the relationship between two variables, so plug in. Use Nickel in the table because it has the most straightforward value for grams. Because  $y$  is grams and  $d$  is drams, make  $y = 5.00$  and  $d = 2.82$ . Plug these values into the answer choices and eliminate any choice that is not true. Choice (A) becomes  $5.00 = 1.8(2.82)$ , which is  $5.00 = 5.08$ . This is close, so keep (A). Choice (B) becomes  $2.82 = 1.8(5.00)$ , which is  $2.82 = 9.00$ . This is false; eliminate (B). Choice (C) becomes  $(5.00)(2.82) = 1.8$ , which is  $14.1 = 1.8$ . This is false; eliminate (C). Choice (D) becomes  $5.00 = 0.56(2.82)$ , which is  $5.00 = 1.58$ . This is false; eliminate (D). The correct answer is (A).
27. **A** The question asks for  $d$  in terms of  $n$  and  $p$ , but there is no equation given. Therefore, start by translating English to math. The total weight is 225 grams, and  $p$  pennies will weigh  $2.50p$  grams. Similarly,  $n$  nickels will weigh  $5.00n$  grams, and  $d$  dimes will weigh  $2.25d$  grams. Therefore, the equation will be  $225 = 2.50p + 5.00n + 2.25d$ . Next, solve the equation for  $d$ . Start by subtracting  $2.50p$  and  $5.00n$  from both sides to get  $225 - 2.50p - 5.00n = 2.25d$ . At this point, every answer has the same terms; the only differences are the addition and subtraction signs. Both the  $p$  and  $n$  terms need to be subtracted from the constant term, so eliminate (B) because both terms are added. Distributing the negative before  $\frac{10}{9}$  in (C) results in  $d = 100 - \frac{10}{9}p + \frac{20}{9}n$ . Since this subtracts the  $p$  term but adds the  $n$  term, eliminate (C). Choice (D) adds the  $p$  term, so eliminate (D). The correct answer is (A).
28. **A** The question asks for a point that does NOT lie on the exterior of a circle, so the correct answer will be on the circle or inside it. Sketch a graph and ballpark. The standard form of the equation of a circle is  $(x - h)^2 + (y - k)^2 = r^2$ , where the center of the circle is  $(h, k)$  and the radius is  $r$ . Therefore, the center of this circle is at  $(2, -5)$  and the radius is 6. Choices (B) and (C) are clearly outside the circle, so eliminate them. Choice (A) is 6 units directly up from the center of the circle, and the circle has a radius of 6. Therefore, the distance from  $(2, 1)$  to the center of the circle is equal to the radius and must be on the circle. The correct answer is (A).



29. **D** The question asks for the number of peppers *the farmer expects...in August*. Work using Bite-Sized Pieces. The question states that *the percent increase from June to July would be half the percent increase from July to August*. First find the percent increase from June to July using the percent change formula:  $\text{percent change} = \frac{\text{difference}}{\text{original}} \times 100$ . Plug the numbers from the table into the formula to get  $\frac{2,640 - 2,200}{2,200} \times 100$ , which is  $\frac{440}{2,200} \times 100$  or 20%. If this is *half the percent increase from July to August*, then the percent increase from July to August must be double 20%, or 40%. To find the number of peppers expected in August, find what 40% of July's amount would be. Multiply 2,640 by 40% to get  $2,640 \times \frac{40}{100}$  or 1,056. Add this to 2,640 to get 3,696 peppers expected in August. The correct answer is (D).
30. **D** The question asks for the ratio of  $b$  to  $a$  given point  $(a, b)$  on a line. Because  $(a, b)$  isn't shown, any nonzero point will work. Use the given point  $(-8, 2)$ , which makes  $a = -8$  and  $b = 2$ . Therefore, the ratio of  $b$  to  $a$  is 2 to  $-8$ , which can be reduced by dividing both terms by  $-2$  to get  $-1$  to 4. The correct answer is (D).
31. **8** The question asks for the number of incorrect answers a student had on a test. Translate the English to math, starting with the first sentence. The *raw score* equals *subtracting  $\frac{1}{4}$  of the number of the incorrect answers from the number of correct answers*. Assign variables to the parts of the problem to make it easier to follow. If incorrect answers are  $IA$  and correct answers are  $CA$ , the equation becomes  $\text{raw score} = CA - \frac{1}{4}(IA)$ . Next, plug in the information given in the question. The *raw score* is 20, so  $20 = CA - \frac{1}{4}(IA)$ . The student answered 30 questions, which is the total of  $CA$  and  $IA$ , so this is another equation:  $30 = CA + IA$ . To find the number of  $IA$ , stack the equations and subtract to cancel out  $CA$ .

$$\begin{array}{r} 30 = CA + IA \\ - \quad [20 = CA - \frac{1}{4}(IA)] \\ \hline 10 = \frac{5}{4}(IA) \end{array}$$

Clear the fraction by multiplying both sides by 4 to get  $40 = 5(IA)$ . Divide both sides by 5 to get  $IA = 8$ . The correct answer is 8.

32. **6** The question asks how much protein, in ounces, was in each meal of a given diet. Use proportions to determine the number of grams of protein, the total number of ounces of protein, and the ounces of protein per meal. There were 672 calories of protein in each meal, and there are 4 calories per gram. Set up a proportion to determine the weight of the protein in grams:  $\frac{4 \text{ calories}}{1 \text{ gram}} = \frac{672 \text{ calories}}{x \text{ grams}}$ . Cross-multiply to get  $4x = 672$ . Divide both sides by 4 to get  $x = 168$  grams. Next, each ounce is 28 grams, so set up another proportion:  $\frac{1 \text{ ounce}}{28 \text{ grams}} = \frac{x \text{ ounces}}{168 \text{ grams}}$ . Cross-multiply to get  $28x = 168$ . Divide both sides by 28 to get  $x = 6$  ounces. The correct answer is 6.

33.  $\frac{3}{4}$  or .75

The question asks for the slope of a line in the  $xy$ -plane. Find the slope using the slope formula:

$m = \frac{y_2 - y_1}{x_2 - x_1}$ , where  $m$  is the slope. There are three points given; to make working the slope formula more straightforward, choose two points that have fractions for the same values (either both

for  $x$  or both for  $y$ ). Use  $\left(-\frac{16}{3}, -3\right)$  and  $\left(\frac{20}{3}, 6\right)$ . Plugging these points into the slope equation gives  $m = \frac{-3 - 6}{\frac{16}{3} - \frac{20}{3}}$ . Subtract in both the numerator and denominator to get  $m = \frac{-9}{\frac{36}{3}}$ .

Reduce the fraction in the denominator to get  $m = \frac{-9}{-12}$  or  $\frac{9}{12}$ . This fits in the Grid-In box, so the correct answer is  $\frac{9}{12}$ . Other equivalent responses, such as  $\frac{3}{4}$  or .75, are also correct.

34. **0 or 5** The question asks for a possible solution for  $a$ . To solve the system, substitute the left side of the first equation for  $b$  in the second equation to get  $a^2 - 6a - 9 = -9 - a$ . Solve the quadratic by setting the equation equal to 0. Add 9 to both sides to get  $a^2 - 6a = -a$ . Add  $a$  to both sides to get  $a^2 - 5a = 0$ . To solve, factor out an  $a$  to get  $a(a - 5) = 0$ . Two expressions multiplied together to equal 0 means that one of the terms must be equal to 0. Therefore,  $a = 0$  or  $a - 5 = 0$ . Add 5 to both sides of the second equation to get  $a = 5$ . The correct answers are 0 and 5.

35. 5 The question asks for  $VW - YZ$ , so find the lengths of those sides. Follow the geometry basic approach. Start by labeling the given information onto the diagram, which is  $TV = 24$ ,  $XZ = 13$ , and  $\angle W \cong \angle Z$ . Because both triangles are right triangles with another congruent angle, the triangles must be similar triangles. Next, write down formulas. SOHCAHTOA indicates that  $\sin = \frac{\text{opposite}}{\text{hypotenuse}}$ . Because the triangles are similar, the trigonometric functions for the corresponding angles are equal. Therefore,  $\sin T = \sin X = \frac{5}{13} = \frac{YZ}{XZ} = \frac{VW}{TW}$ . The question states that  $XZ = 13$ , so  $YZ = 5$ . When dealing with right triangles, keep an eye out for Pythagorean triples. This is a 5-12-13 right triangle, so  $XY = 12$ ; otherwise, use the Pythagorean Theorem to find that  $5^2 + 12^2 = 13^2$ . Label each of these sides in the figure. Because the triangles are similar, the sides are in the same ratio. Create a ratio using the sides opposite the congruent angles:  $\frac{TV}{XY} = \frac{24}{12}$ , or  $\frac{TV}{XY} = 2$ , so  $TV = 2XY$ . Therefore, all the sides of triangle  $TVW$  are twice those of triangle  $XYZ$ . Thus,  $TW = 26$  and  $VW = 10$ . Label each of these sides in the figure. The question asks for  $VW - YZ$ , which is  $10 - 5$  or  $5$ . The correct answer is 5.

36.  $\frac{7}{36}$  or .194

The question asks what fraction of the circumference is the arc, which translates to  $\frac{\text{arc}}{\text{circumference}}$ .

The length of an arc compared to the circumference of the circle is proportional to the central

angle over 360 degrees, so  $\frac{\text{arc}}{\text{circumference}} = \frac{\text{angle}}{360^\circ}$ . Plug in the given information to get

$\frac{\text{arc}}{\text{circumference}} = \frac{70^\circ}{360^\circ}$ . The fraction reduces to  $\frac{7}{36}$ . The correct answer is  $\frac{7}{36}$  or .194.

37.  $\frac{7}{8}$  or .875

The question asks for the probability that a selected participant threw 3 bullseyes on Day 1 or Day 2, provided that the participant threw 3 bullseyes on one of the three days. Probability is  $\frac{\text{number of outcomes that fulfill requirements}}{\text{total number of possible outcomes}}$ . On Day 1, 5 participants threw 3 bullseyes, and on Day 2, 2 participants threw 3 bullseyes, so there are 7 outcomes that fulfill the requirements. Because the question stipulates that the participants must have thrown 3 bullseyes on one of the three days, the total number of possible outcomes is the number of participants who threw 3 bullseyes, which is 8. Therefore, the probability that someone who threw 3 bullseyes did so on Days 1 or 2 is  $\frac{7}{8}$ . The correct answer is  $\frac{7}{8}$  or .875.

38.  $\frac{11}{5}$  or 2.2

The question asks for the mean number of bullseyes on Day 2, so find the total number of bullseyes thrown and divide by the number of participants. To find the total number of bullseyes, multiply the number of participants who threw a certain number of bullseyes by the number of bullseyes and add those products. On Day 2, there were 3 participants who threw 0 bullseyes, 3 who threw 1 bullseye, 3 who threw 2 bullseyes, 2 who threw 3 bullseyes, 2 who threw 4 bullseyes, and 2 who threw 5 bullseyes. Therefore, the total number of bullseyes thrown on Day 2 is  $(3 \times 0) + (3 \times 1) + (3 \times 2) + (2 \times 3) + (2 \times 4) + (2 \times 5)$ , which is  $0 + 3 + 6 + 6 + 8 + 10 = 33$ . There are 15 participants, so the average bullseyes per participant is  $\frac{33}{15}$ , which is  $\frac{11}{5}$  or 2.2. The correct answer is  $\frac{11}{5}$  or 2.2.

## RAW SCORE CONVERSION TABLE SECTION AND TEST SCORES

Raw Score (# of correct answers)	Math Section Score	Reading Test Score	Writing and Language Test Score
0	200	10	10
1	200	10	10
2	210	10	10
3	230	11	10
4	240	12	11
5	260	13	12
6	280	14	13
7	290	15	13
8	310	15	14
9	320	16	15
10	330	17	16
11	340	17	16
12	360	18	17
13	370	19	18
14	380	19	19
15	390	20	19
16	410	20	20
17	420	21	21
18	430	21	21
19	440	22	22
20	450	22	23
21	460	23	23
22	470	23	24
23	480	24	25
24	480	24	25
25	490	25	26
26	500	25	26
27	510	26	27
28	520	26	28
29	520	27	28

Raw Score (# of correct answers)	Math Section Score	Reading Test Score	Writing and Language Test Score
30	530	28	29
31	540	28	30
32	550	29	30
33	560	29	31
34	560	30	32
35	570	30	32
36	580	31	33
37	590	31	34
38	600	32	34
39	600	32	35
40	610	33	36
41	620	33	37
42	630	34	38
43	640	35	39
44	650	35	40
45	660	36	
46	670	37	
47	670	37	
48	680	38	
49	690	38	
50	700	39	
51	710	40	
52	730	40	
53	740		
54	750		
55	760		
56	780		
57	790		
58	800		

Please note that the numbers in the table may shift slightly depending on the SAT's scale from test to test; however, you can still use this table to get an idea of how your performance on the practice tests will translate to the actual SAT.

## CONVERSION EQUATION SECTION AND TEST SCORES



