
Test 3 Solutions Manual

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**Note: There is no Essay Answer Key at this time.*

SECTION 1 - READING

QUESTION 1

Choice D is best. This passage is definitely about sorrow, as indicated in the blurb preceding it. This is an introspective monologue of a man meeting his daughter-in-law and his grandchildren after his son died. Moreover, there are a few clues that suggest Mr. Haynes is filled with regret in addition to sorrow, especially the paragraph in lines 41–53 (“Ending the...unabashed shining”). Some of the language in the paragraph shows that Mr. Haynes regrets the relationship he had with his family before this moment.

- It’s NOT Choice A because while this is a sad passage, the narrator does not dwell on the emotional damage of war; it does not seem like a concern of his.
- It’s NOT Choice B because while the narrator does use nature and beauty as a metaphor for relationships, nature itself is not the focus of the passage.
- It’s NOT Choice C because this passage is certainly not “joyful”; if anything, he regrets the way he acted as a parent and grandparent.

QUESTION 2

Choice A is best. Mrs. Haynes definitely seems more refined now. Mr. Haynes describes her at the time of her marriage to his son as “a ragged weed” (line 20), and that he was “insulted by their union” (line 22). Now, however, “Mrs. Haynes eloquently commended me to her progeny, her voice—light and sweet as sugar—betraying none of that Georgia molasses that stained the memory of our last encounter” (lines 42–46).

- It’s NOT Choice B because while Mr. Haynes definitely is contrite, we are not clear about how Mrs. Haynes is feeling. This passage is entirely from Mr. Haynes point of view, and he never says if she is contrite or not.
- It’s NOT Choice C because it seems like Mr. Haynes and his daughter-in-law are warming to each other in the wake of his son’s death; at the very least, they are not as bitter as they once were.
- It’s NOT Choice D because there is no evidence to suggest she is more fragile now than in the past. We cannot say whether or not this is true.

QUESTION 3

Choice A is best. Mr. Haynes describes his first encounter with his daughter-in-law in the second paragraph. In line 25, he describes himself as having “storming passions,” which are almost the exact words in this answer choice.

- It’s NOT Choice B because while a sun metaphor is used in this paragraph, Mr. Haynes uses it to describe his son, not himself.

- It's NOT Choice C because the bargaining with Death comes during Mr. Haynes's description of his son's death, not his first meeting with Mrs. Haynes.
- It's NOT Choice D because Mr. Haynes uses "ragged weed" to describe Mrs. Haynes, not himself.

QUESTION 4

Choice B is best. We know Mr. Haynes initiated the poor relationship with his daughter-in-law from his description of how they met and his reaction to their engagement. So, he decreed the discord. That means Mrs. Haynes ended it; she is the forgiving one here.

- It's NOT Choice A because "erudite" means "having or showing great knowledge or learning," which does not really fit this context. Anyways, it's best to avoid overly complex words like this, especially if you do not know the exact meaning.
- It's NOT Choice C because it is probably safe to assume she is literate, but it does not matter at all; this is about relationships, not reading.
- It's NOT Choice D because she does not seem powerless in this passage, and this sentence does not indicate that either.

QUESTION 5

Choice D is best. This is the whole point of this passage, of what Mr. Haynes feels regret for. He cast aside his own son and daughter-in-law when they first told him of their engagement, as we found out in paragraph two. Then, in lines 54–56 ("This lily...grateful contrition") we learn Mr. Haynes is truly sorry for what he did.

- It's NOT Choice A because while he does feel sorrow for his dead son, Mrs. Haynes does not make him feel more sad about it; at least Mr. Haynes never says this.
- It's NOT Choice B because again, the garden metaphor is just a metaphor to describe his relationships and feelings.
- It's NOT Choice C because there is nothing in the passage to suggest Mr. Haynes is not able-bodied; when he says he is unable to speak, he means that he does not know what to say, not that he is literally unable to.

QUESTION 6

Choice B is best. In these lines, Mr. Haynes clearly articulates his regret and sorrow for the way he treated his daughter-in-law.

- It's NOT Choice A because these lines show that Mr. Haynes is happy that he and his daughter-in-law have a renewed relationship long after he thought that would be impossible. However, he does not admit he is sorry for the way he treated her.
- It's NOT Choice C because in these lines, Mr. Haynes expresses his thanks that she is opening up to him, but laments that he is unable speak out loud. While he does feel bad about that, in these lines it is not for treating her poorly.

- It's NOT Choice D because in these lines Mr. Haynes compares them to plants in a garden and again laments that he cannot find the right words. But again, he is not talking about the way he treated her in the past.

QUESTION 7

Choice C is best. This paragraph sets up the rest of the passage by providing the history behind Mr. and Mrs. Haynes's relationship. When they first met, Mr. Haynes's son announced they were getting married, and Mr. Haynes responded by cutting them from his life. He did not like Mrs. Haynes and wanted no part of their marriage. For the rest of the passage, we learn he regretted his actions and is happy he and Mrs. Haynes have the opportunity to improve their relationship.

- It's NOT Choice A because while Mr. Haynes uses metaphors in the paragraph, he also uses them throughout the passage; using metaphor to describe his character is not unique to this paragraph.
- It's NOT Choice B because what she looked like as a child is not relevant to this passage at all; their relationship is much more critical.
- It's NOT Choice D because this paragraph mostly reveals Mr. Haynes's animosity toward Mrs. Haynes, not the other way around. We do not know how Mrs. Haynes felt about that moment or if she had any animosity toward him.

QUESTION 8

Choice B is best. This is a difficult question, but there are a few context clues we can use. First, we have lines 41–43 (“Ending the...her voice”), in which Mr. Haynes notices Mrs. Haynes's eloquence and her grace. In line 54, Mr. Haynes again uses “grace” to describe Mrs. Haynes. Finally, lines 60–62 (“We each...as moss”) are key. He describes her as “winsome” and himself as “mute,” which are closest to grace and ineptitude.

- It's NOT Choice A because it is awkward to contrast age with curiosity—they are not really comparable qualities. More importantly, it is not an important part of the passage.
- It's NOT Choice C because he does not seem to be too witty right now; he is unable to speak to his own daughter-in-law. Also, we cannot say for sure whether Mrs. Haynes is bitter or not.
- It's NOT Choice D because Mr. Haynes never describes her sorrow, so again we cannot say for sure. He only really describes her as warm, eloquent, and graceful.

QUESTION 9

Choice D is best. These lines compare Mr. Haynes's muteness with Mrs. Haynes's winsomeness, which is the closest to ineptitude and grace.

- It's NOT Choice A because in these lines Mr. Haynes uses a complex metaphor to talk about the wisdom he's learned in his life.

- It's NOT Choice B because these lines describe their first interaction, not their current relationship.
- It's NOT Choice C because these lines describe how Mr. Haynes felt seeing Mrs. Haynes again for the first time since abandoning her and his son, not their current relationship.

QUESTION 10

Choice D is best. Although this is a difficult sentence to read, their “present sorrow” definitely means “current sadness.”

- It's NOT Choice A because while a present can be a gift, in this case it does not make sense to say “gifted sorrow.”
- It's NOT Choice B because again “aware” does not make sense in front of sorrow.
- It's NOT Choice C because while manifest can mean clear, obvious, or on display, present can only mean manifest as a verb. In this case, present is an adjective.

QUESTION 11

Choice D is best. This passage starts off by introducing new tariffs implemented by the United States government. Then, the next two paragraphs discuss the two sides of the debate: the protectionists and free trade advocates. Finally, the last two paragraphs show how that debate played out in a Japan-European Union trade deal and how that could work in the US. Clearly, this passage introduces a problem (regulating international trade) and presents the two sides of the debate.

- It's NOT Choice A because tariffs are actually a tax on imports, not exports. So the US imposing a new tariff would not affect an American company's exports.
- It's NOT Choice B because while the authors do use the Japan-European Union trade agreement as an example, they never advocate for a Japan-EU-US agreement.
- It's NOT Choice C because the authors never take a side on the argument—they present both sides but do not pick favorites.

QUESTION 12

Choice A is best. The key here is in lines 15–26 (“an American...of production”). The US needs protectionist trade policies because regulations for employees and the environment cause the cost of production to increase.

- It's NOT Choice B because it would not make sense to say stricter environmental regulation results in decreased environmental sustainability.
- It's NOT Choice C because while there may be some arguments for this, the authors never mention them in the passage. We cannot say if this is true or if protectionists would say this.
- It's NOT Choice D because while production costs do go up, which can make them less competitive, there is nothing to suggest that domestic companies are going bankrupt. That condition is too harsh.

QUESTION 13

Choice A is best. These lines clearly articulate the link between higher regulations and higher production costs.

- It's NOT Choice B because these lines show the other side of this, that countries with lower regulations have lower production costs. While it is tempting to pick this, it makes more sense to go with the direct link that answers the previous question.
- It's NOT Choice C because these lines talk about the results of foreign companies having lower operating costs but not why they might have them.
- It's NOT Choice D because these lines show the main argument of free-trade advocates. They do not answer the previous question.

QUESTION 14

Choice B is best. While the question and answers are a little vague, this is definitely illustrating a concept. The concept is that everyone is better off when production costs are lower. The illustration is of American car companies—when the price of steel is lower, the company can hire more people and sell more cars, both of which are good for the economy.

- It's NOT Choice A because there is not really a “misconception” here.
- It's NOT Choice C because while these lines help explain a new claim, that claim occurs in lines 40–43 (“Free trade...everybody wins”).
- It's NOT Choice D because there is nothing technical about this example.

QUESTION 15

Choice D is best. Europe is known for having really fancy cheeses. Here, “fine” has to mean “luxurious.”

- It's NOT Choice A because it would not make sense to highlight Europe's “decent” cheeses. If they were decent they would not be noteworthy enough for an example here.
- It's NOT Choice B because “current” cannot mean “fine” under most circumstances.
- It's NOT Choice C because of course every product is “local” to where it was produced. Moreover, “local” also can never mean “fine.”

QUESTION 16

Choice C is best. Free trade advocates believe the entire economy, even domestic producers and consumers, are better off with free trade rather than tariffs. So, free trade advocates advocate for the elimination of tariffs. Thus, they would be disappointed to see more put into place.

- It's NOT Choice A because higher tariffs would protect the profitability of Japanese cheese-makers—that is the whole point of a tariff.

- It's NOT Choice C because she would be worried about the impact of a tariff on the economy—she is a free trade advocate because she believes tariffs hurt the economy.
- It's NOT Choice D because it is unclear how a Japanese tariff on European cheese would increase European cheese productions; furthermore, she would not be optimistic about any effects of a tariff.

QUESTION 17

Choice D is best. These lines spell out what free trade advocates believe: lower tariffs lower production costs, helping the entire economy (even domestic companies). These are a free trade advocate's beliefs.

- It's NOT Choice A because these lines just describe what a tariff is.
- It's NOT Choice B because these lines describe a protectionist's beliefs, not those of a free trade advocate.
- It's NOT Choice C because while this is tangentially related to a free advocate's beliefs, D is stronger because it spells them out in simple terms. Here, the general idea is still there, but the authors are specifically focusing on one example.

QUESTION 18

Choice B is best. A "place at the table" almost always means "seat at the table"—it is a common metaphor for negotiations.

- It's NOT Choice A because while place can mean location, "location at the table" is awkward and not as strong as "seat at the table."
- It's NOT Choice C because again, "point at the table" does not make sense in the context of inviting people to a negotiation.
- It's NOT Choice D because again, "situation at the table" does not make sense in the context of inviting people to a negotiation.

QUESTION 19

Choice D is best. The solid line is the price of Chinese steel and the dashed line is the price of American (domestic) steel. The dashed line is above the solid line for every year except 2018, so that is our answer.

- It's NOT Choice A because for all of these years the price of US steel was higher.
- It's NOT Choice B because for all of these years the price of US steel was higher.
- It's NOT Choice C because for this year the price of US steel was higher.

QUESTION 20

Choice C is best. As we can see in the graph, the lightest bar is the tariff from 2017, the middle one from 2018, and the darkest one from 2027 (projected). Mozzarella goes from 20% to 0% from 2017 to 2017, which is the largest drop off in this chart.

- It's NOT Choice A because only two out of five cheese types had a 0% tariff in 2018.
- It's NOT Choice B because this is not true—the drop from 2018 to 2027 is much larger than the drop from 2017 to 2018 (10% compared to 2.5%).
- It's NOT Choice D because Camembert will have the highest tariff in 2027 at 20%; Feta's tariff will only be at 5%.

QUESTION 21

Choice B is best. As mentioned throughout the passage, tariffs are put into place to keep domestic companies competitive. These lines take that idea and use it specifically with Japanese cheese producers. Japan uses tariffs to keep domestic cheese producers profitable. Therefore, if we want to know more about the tariffs, we should look at what domestic cheese producers are actually producing. Then it may make sense why some cheese tariffs are dropping and others are staying high.

- It's NOT Choice A because while this could be useful, it does not help much if we do not know the prices of Japanese cheeses.
- It's NOT Choice C because while that could be relevant if we are trying to understand the whole import market, it does not really help us understand the graph better. Moreover, it does not relate to the indicated lines.
- It's NOT Choice D because historical production is much less important than current or future production. You would not put in tariffs to protect industries in the past; that does not make any sense.

QUESTION 22

Choice C is best. The first paragraph sets the stage by asking about a solution to the problem of premature babies. The next three paragraphs then talk about the research on lamb fetuses and its implication on humans. That clearly is the bulk of the passage and its main purpose.

- It's NOT Choice A because while the research into artificial wombs for lamb gestation is important to the passage, it is only one piece. This answer is missing the implications of that research on humans.
- It's NOT Choice B because premature mortality rates does not seem to have an effect on animal testing—rather, they are using animals to test a system to slow premature mortality.
- It's NOT Choice D because while this is in the passage, it is clearly not the main purpose.

QUESTION 23

Choice A is best. Dr. Mychaliska is clearly excited about the results, and the author uses his excited quote to show that the results are really promising.

- It's NOT Choice B because they did not perform this experiment with local farms in mind—the whole point was to see if this could work on humans someday.

- It's NOT Choice C because at the time of this quote the ethical issues have not yet been raised and will not be for some time.
- It's NOT Choice D because the research was not inconclusive; the results were very promising.

QUESTION 24

Choice D is best. Despite all the promising results, the research team and Dr. Flake's first controversy to deal with is that people might not accept the technology. This is indicated in lines 40–45 ("While the...to humans"). People might not be willing to give birth to a baby only to have it go in an artificial sack for another month or two.

- It's NOT Choice A because funding did not seem like an issue at all in this passage.
- It's NOT Choice B because the supply of lambs is not limited.
- It's NOT Choice C because while the author does mention the controversy about testing on animals, he never says it might set the project back.

QUESTION 25

Choice A is best. These lines make it clear that Flake is concerned that the American people may not accept the new technology, no matter how well it works in practice.

- It's NOT Choice B because these lines talk about the next steps of the research, which is to do the experiment on animals more similar to humans.
- It's NOT Choice C because these lines discuss one lamb who was saved from the experiment and allowed to live on a farm.
- It's NOT Choice D because these lines say that the freed lamb will be a nice reminder for the advancement in this technology. It does not address the previous question at all.

QUESTION 26

Choice A is best. The author includes this stat to show the depth of the problem the researchers are trying to address. Right now, 50% of these infants die; if they could prevent all of them, or at least some of them, they would save a lot of lives. That is why they are doing this research.

- It's NOT Choice B because this stat is about humans, not lambs.
- It's NOT Choice C because this is infant mortality rate without the biobags; they have not been approved for human use yet.
- It's NOT Choice D because again, this stat is about humans, not lambs.

QUESTION 27

Choice C is best. The reason the researchers want to move from lambs to rabbits, gibbons, and chimpanzees is because they are more similar to humans, especially in fetal development. This is articulated in paragraph four.

- It's NOT Choice A because the author never makes this claim about any of the animals.
- It's NOT Choice B because they want to switch to animals that are more similar to humans, since that is the end goal. If it already works on lambs, they do not need to test more lamb-like animals unless they get closer to humans.
- It's NOT Choice D because the author also never makes this claim. The point is that they are more similar to humans.

QUESTION 28

Choice C is best. These lines imply that artificial human gestation remains a fantasy because the process has not been tried on animals that are more similar to humans. They directly answer Question 27 by showing that lamb research is not enough because lambs are too dissimilar to humans.

- It's NOT Choice A because these lines introduce one reason why artificial human gestation may not work in real life; they have nothing to do with other animals.
- It's NOT Choice B because these lines just say that it will be some time before this is tested on humans, but not why.
- It's NOT Choice D because these lines justify the euthanization of the animals; they also have nothing to do with other species.

QUESTION 29

Choice C is best. Euthanasia and dissection are critical parts of the experiment, as the author makes clear in lines 62–70 (“To study...following extraction”). Without euthanasia and dissection, the researcher would not be able to prove the fetuses continued to have brain development in the biobag.

- It's NOT Choice A because the author does not make that claim in this paragraph, or in the passage at all.
- It's NOT Choice B because while this is true, it just provides the reasoning for euthanasia and dissection—they are much more central to this paragraph and the passage as a whole.
- It's NOT Choice D because while this may be true, it is not a critical point; it is more like a minor detail.

QUESTION 30

Choice C is best. It is surprising that lamb was saved from the experiment because scientific research is usually planned out and structured far in advance. Random changes like that are not common.

- It's NOT Choice A because they were hopeful the experiment would work. Also, this line comes well after the success of the experiment was established to us.
- It's NOT Choice B because the passage says it was one of Flake's assistants that made the decision to spare it, not Flake. We do not know how Flake felt about it.

- It's NOT Choice D because while the animals were slated to perish in this scientific experiment, not all animals perish in other scientific experiments.

QUESTION 31

Choice B is best. To “win over someone’s heart” is the same as “melting someone’s heart.” In both cases, the research would feel really strongly for the lamb and want to spare it.

- It's NOT Choice A because you usually do not “conquer” someone else’s heart; that is a harsh phrase and not commonly used in English.
- It's NOT Choice C because to “achieve someone’s heart” does not make sense. You achieve a goal or dream, not an object.
- It's NOT Choice D because “completing someone’s heart” does not fit this context. Usually we would say that about true love (like “you complete me”), which is not what happened between the assistant and the lamb.

QUESTION 32

Choice D is best. “Amble” definitely has a connotation of not knowing where you are going, which is most similar to wander. In this context, the Cherokees “amble” or “wander” through Georgia, either recovering from the last attack from white Americans or wondering when the next will come.

- It's NOT Choice A because “amble” definitely means to move, not talk.
- It's NOT Choice B because while “stroll” can mean “amble,” stroll has a relaxed and calm connotation about it, which does not fit the context.
- It's NOT Choice C because while “walk” can mean “amble,” walk is not as strong as wander in this context. Wander carries more meaning to it than just walk.

QUESTION 33

Choice B is best. Given that Americans had been violating the rights of Cherokees for years, Ridge realizes they are in a weak position and need to negotiate again. They cannot defend themselves and realized that the US government will not defend them right now. So, they need to negotiate peace terms to survive.

- It's NOT Choice A because he believed earlier that he did not need to negotiate, but now realizes that he does; that is why he is sending this letter.
- It's NOT Choice C because Ridge understands the loss of hope; the Cherokee people have been assailed by Americans for years without justice.
- It's NOT Choice D because he has always believed Cherokees had a right to their land; but, he understands the US government is not respecting that, so they need to negotiate for their rights.

QUESTION 34

Choice C is best. In these lines, Ridge says outright that he would like to facilitate a negotiation between the Cherokees and Americans.

- It's NOT Choice A because these lines describe the current state of the Cherokee people, which is one of hopelessness and fear. However, there is no mention of Ridge's own views here.
- It's NOT Choice B because these lines show Ridge was previously unwilling to negotiate because he believed the Cherokees' rights were protected. It is not until the next sentence that Ridge admits they need a compromise.
- It's NOT Choice D because these lines talk about what Ridge expects if he agrees to move the Cherokees out west. This is part of the negotiation but does not show his desire for one to begin with.

QUESTION 35

Choice B is best. A delegation is usually a group of people who are authorized to negotiate on behalf of a larger group. If you think of the United Nations, the United States delegation is a group of Americans who negotiate for American interests in the body. In this context, it makes sense that the Cherokees would send a group to the US government to appeal for their rights.

- It's NOT Choice A because while it is possible one or more of the delegation was a lawyer, "lawyer" and "delegation" are not synonyms and cannot be used interchangeably.
- It's NOT Choice C because "assignment" usually means a task given to someone. While the delegation had an assignment (to negotiate for their rights), they themselves were not an assignment.
- It's NOT Choice D because it is unlikely the Cherokees sent their chieftain to negotiate. Moreover, if the chieftain went, the passage would have said the chieftain went; there would be no need to use another word.

QUESTION 36

Choice B is best. This is a difficult question, but we have to focus on the specifics of what it is asking. We need to figure out the treaty is invalid, legally speaking, and not just why it is bad or unfair. Lines 54–58 ("the treaty...Cherokee administration") tell us that the treaty is not legitimate because the Cherokees were not involved in writing it. While it may be bad for a number of other reasons, that is why it is illegitimate.

- It's NOT Choice A because while he does compare the Senators who signed the treaty to criminals, they are not literally convicted criminals.
- It's NOT Choice C because while this is a bad result of the treaty, it is not the reason the treaty is invalid.
- It's NOT Choice D because while this also a bad result, it also is not the reason the treaty is invalid.

QUESTION 37

Choice A is best. These lines specifically say the treaty “lacks...legitimacy, having not been approved by the proper channels within Cherokee Administration.”

- It's NOT Choice B because these lines say the treaty is bad because it strips the Cherokees of their rights but says nothing about it being illegitimate.
- It's NOT Choice C because again these lines talk about how the treaty strips the Cherokees of their property rights but not about it being illegitimate.
- It's NOT Choice D because these lines describe how the Americans' awful treatment of the Cherokees has now been codified in this new treaty. While bad, that does not make it illegal or illegitimate.

QUESTION 38

Choice A is best. While the two authors disagree on how to address it, they both believe the Americans' treatment of the Cherokees is a grave violation of human rights. This is central to both of their passages.

- It's NOT Choice B because it seems like they both believe that treatment will continue unless they take drastic action.
- It's NOT Choice C because they would both say the treatment of Cherokees has gotten worse over the recent years. This particular bad treatment seems new, and not a continuation of their previous history.
- It's NOT Choice D because these passages never mention federal aid for these two states.

QUESTION 39

Choice c is best. Both authors invoke property rights as reason that the Americans' treatment of the Cherokees is illegal. Thus, when Ross says the Cherokees have a legal right to their lands as granted by the US government, Ridge would definitely agree.

- It's NOT Choice A because a simple statement on their property rights is not “rhetorical flourish”; both would say their rights are a fact.
- It's NOT Choice B because Ridge often invokes property rights in his passage, so he would not say they are an irrelevant detail.
- It's NOT Choice D because again, a simple statement regarding their property rights is not a sign of a “violent political agenda.”

QUESTION 40

Choice A is best. Ridge absolutely believes a treaty is necessary, as evidenced in lines 21–25 (“However acknowledging...an agreement”). Ross believes the treaty that has been signed has been an illegitimate abuse of power by the Americans designed to strip Cherokees of their land and rights.

- It's NOT Choice B because these issues do not come up much in the passage. Both authors assert the Cherokees legal rights, but neither really defines the Cherokee people in relation to that.
- It's NOT Choice C because both authors focus on the Cherokees. We do not know anything about their views on other Native American tribes.
- It's NOT Choice D because while Ridge did reach out to the Governor of Georgia to start negotiations, and Ross believes the Cherokees need to be included in any treaty, this answer is off in a number of ways. First, we do not know that Ridge believes the Governor of Georgia to be the best person to negotiate with, and we do not know for certain if Ross believes the Cherokees ought to be the primary authors of any treaty. Both parts are a little bit off, and that makes this answer incorrect.

QUESTION 41

Choice A is best. Ridge definitely believes a compromise or treaty is necessary for the Cherokees, but Ross believes those treaties to be illegitimate because the US Senate is full of crooks who did not consult the Cherokees at all (see paragraph one of passage two).

- It's NOT Choice B because Ross clearly does not believe in the treaty, and would certainly not say it is the first step towards happiness.
- It's NOT Choice C because saying a compromise between the Cherokees and Americans unintentionally benefits the Cherokees does not make sense. By compromising, both sides are seeking to benefit themselves.
- It's NOT Choice D because Ross does not seem to advocate for the western migration in the same way Ridge does, so he would not say a compromise ruins their chance to move west. It is not what he is concerned about.

QUESTION 42

Choice C is best. Most of lines 1–76 (“Evolution is...different songs”) is about how evolution works and how we it exists. Then, the last two paragraphs are about people should understand it and how people can come to understand all types of scientific discovery.

- It's NOT Choice A because while the beginning of the passage can get a little technical, it is aimed at a broad audience. It does not transition from being technical to being broad.
- It's NOT Choice B because the passage actually does not talk about Darwin at all, so the beginning of this passage is not a history of his work.
- It's NOT Choice D because the passage really describes what evolution is to a broad audience. It is not an analysis of the field of study; moreover, the passage does not talk much about its reception in the scientific community but rather the general community.

QUESTION 43

Choice D is best. Because this passage is aimed at a broad audience, most of the people reading it will not have an in-depth understanding of how genetic mutation works. So, the author uses a common idea, an instruction manual, to help explain how it works.

- It's NOT Choice A because while the author is explaining the idea of evolution, he is not including that phrase to credit another person in science.
- It's NOT Choice B because it is unclear what the "part" would be and what the "whole" would be here—this is a scientific theory, not something that has parts and wholes.
- It's NOT Choice C because there is nothing funny about this phrase—it is meant to be explanatory.

QUESTION 44

Choice D is best. The first and second-to-last paragraphs show us the answer here. In paragraph one, the author introduces evolution by bringing in some of its misconceptions: "How can people be descended from apes when our bodies look so different?" (lines 7–8). The penultimate paragraph restates this idea: evolution is hard to grasp because it contradicts what we see around us everyday.

- It's NOT Choice A because evolution has a lot of empirical evidence; it is one of the most studied and widely accepted theories in biology.
- It's NOT Choice B because this nuanced distinction is probably not the first thing people think of when they hear evolution.
- It's NOT Choice C because while this may play a part in it, the author never mentions religious concerns, so this cannot be the correct answer.

QUESTION 45

Choice A is best. This question paints the clearest picture of what everyday people think when they hear of evolution. How can people and apes be related if we are so different?

- It's NOT Choice B because these lines introduce the idea of natural selection but do not say anything about how people react to evolution.
- It's NOT Choice C because these lines talk about transitional links but again not about how people react to evolution.
- It's NOT Choice D because these lines instruct people on how to move past that original reaction to get to the truth but do not say what their initial reaction is.

QUESTION 46

Choice A is best. Lines 58–62 say this outright: "Speciation...is often expedited when some members of a species start to live in isolation from the rest of the species." When some members of the species are separated, they start to differentiate more quickly.

- It's NOT Choice B because speciation causes fossil records of transitional links, not the other way around.
- It's NOT Choice C because this is how evolution occurs but not necessarily speciation. Speciation is when one group within a species becomes its own, distinct species.
- It's NOT Choice D because speciation caused a common ancestor to split into what became humans and apes, not the other way around. Speciation does not occur because of that one split.

QUESTION 47

Choice C is best. These lines clearly spell out that speciation occurs when groups of species are isolated from each other.

- It's NOT Choice A because these lines talk about natural selection not speciation. Although related, they are not the same.
- It's NOT Choice B because these lines introduce what speciation is but not what causes it.
- It's NOT Choice D because these lines explain the slow nature of evolution but not what causes speciation.

QUESTION 48

Choice A is best. The author starts off the passage by asking some common questions about the validity of evolution in lines 7–10 (“How can...humans today”). In the sixth paragraph, the author uses what she talked about previously in the passage to answer those questions, dispelling any misconception about evolution.

- It's NOT Choice B because the author never talks about a defining moment that convinced her evolution was true; she studied the research and literature. Most importantly, this paragraph does not focus on her or her realizations at all.
- It's NOT Choice C because she uses the theory of evolution to say humans and apes are related despite appearances. She is not emphasizing doubt, she tries to remove it.
- It's NOT Choice D because she is not celebrating the difference between apes and humans; she is using evolution to explain how we are related despite appearances.

QUESTION 49

Choice A is best. When we say something “stands the test of time,” we mean that something has lasted for a long time, or “endured.”

- It's NOT Choice B because it would not make sense to say something “permits the test of time.” Permit cannot fit here.
- It's NOT Choice C because similarly, it does not make sense to use “stand” and “believe” interchangeably here; they are not synonyms.

- It's NOT Choice D because while something can "take" a test, we do not use "take" when we are talking about the test of time. This is a saying that means something has lasted a while; it is not a literal test.

QUESTION 50

Choice B is best. It might seem odd to some that a strong scientific theory would take so long to be accepted by the public, but this graph contextualizes that by showing how long the public took to accept other theories.

- It's NOT Choice A because not every theory was accepted slowly. Evolution seems to be one of the slower ones, but it would also be difficult to say which theories have been fast or slow in public perception.
- It's NOT Choice C because while evolution seems to be on the slower side, it is not the slowest, nor is it extreme in any way. We cannot say the graph tells us it is regarded differently.
- It's NOT Choice D because while evolution is placed next to other important discoveries, that is not the point of the graph.

QUESTION 51

Choice A is best. In this graph, the first tick is the discovery, the second tick is the acceptance by the public, and the black bar is the time in between. Heliocentricity's second tick comes before Oxygen's first, so we know Heliocentricity was accepted before Oxygen was discovered.

- It's NOT Choice B because vaccines are older than evolution but have still not been accepted by the public.
- It's NOT Choice C because neither of these theories have been accepted yet—they have no second tick mark.
- It's NOT Choice D because the black bar of Oxygen seems shorter than that of Genetics, suggesting it was accepted more quickly.

QUESTION 52

Choice D is best. In 1840, no one believed in the theory of evolution because Darwin's *On the Origin of Species*, the book that brought evolution into the mainstream, was not published until 1959. Similarly, Heliocentricity was not discovered until the mid 1500s, so in the year 1500 no one believed in it.

- It's NOT Choice A because according to the graph, people have not yet fully accepted Pluto's status as dwarf planet.
- It's NOT Choice B because the "either or" aspect of this answer makes it incorrect. The graph does not say if people believed in one but not the other.
- It's NOT Choice C because while this fact is true, string theory does not relate to evolution in the year 1840 at all. It may relate to evolution now in that neither has full public acceptance, but that is not what the question is asking.

SECTION 2 - WRITING

QUESTION 1

Choice D is best. D is the only choice that does that repeat words with the same meaning as “often.” Each concept or idea within a sentence should be expressed only once.

- It’s NOT Choice A because the underlined “many times” and “often” mean the same thing. It is redundant to repeat these two in the same sentence.
- It’s NOT Choice B because “often” and “frequently” mean the same thing. It is redundant to repeat these two words in the same sentence.
- It’s NOT Choice C because “often” and “repeatedly” mean the same thing. It is redundant to repeat these two words in the same sentence.

QUESTION 2

Choice A is best. Effect is a noun meaning the result of a change, and the correct idiom use for effect is “effect on.”

- It’s NOT Choice B because affect is a verb meaning to impact or change. The sentence is looking for “effect,” which is a homophone of affect.
- It’s NOT Choice C because the correct idiom use for effect is “effect on _____” not “effect to.”
- It’s NOT Choice D because the correct idiom use for affect is “affect _____” not “affects on.” That’s for effect.

QUESTION 3

Choice B is best. There needs to be parallel structure after “additional scientific discoveries about...” because it gives a list of topics for the scientific discoveries: 1. Their genes 2. Unique Ancestry 3. Diverse Capabilities. Only “unique ancestry” works here because it’s a noun and it’s concise.

- It’s NOT Choice A because “what their ancestors were” doesn’t follow the same format of the list, causing the sentence to lose parallel structure.
- It’s NOT Choice C because “who their ancestors were” also doesn’t follow the same format of the list, causing the sentence to lose parallel structure.
- It’s NOT Choice D because “inheriting” is a verb or a participle, which doesn’t follow the parallel structure set by the sentence.

QUESTION 4

Choice C is best. The question asks for the choice that most effectively sets up the list examples in the following sentence, which gives a list of trees that depend on fungi for

survival. Choice C is the best fit, since it is the only option that mentions how fungi provide for the trees (with nutrients).

- It's NOT Choice A because A talks about attracting parasites, which is the opposite of the tree depending on fungi.
- It's NOT Choice B because B talks about how the fungi uses the tree, not the other way around.
- It's NOT Choice D because D talks about a coexisting relationship, not how trees depend on fungi for survival.

QUESTION 5

Choice A is best. This sentence gives a list of trees. A list should always end in ____, ____, and _____. The last item should be in the format “, and _____.”

- It's NOT Choice B because a semicolon connects two independent clauses, and the clause after the semicolon is not an independent clause.
- It's NOT Choice C because a colon gives a list, and the words after the colon don't form a list.
- It's NOT Choice D because the comma should be before the “and.”

QUESTION 6

Choice B is best. This choice has the proper subject-verb agreement and verb tense. The subject “these trees” is plural and only B is a plural verb.

- It's NOT Choice A because “creates” is a singular verb.
- It's NOT Choice C because “has created” is a singular verb.
- It's NOT Choice D because “creating” makes the first clause a dependent clause because there's no verb. “Creating habitats...” would just be describing the trees instead of serving as a verb.

QUESTION 7

Choice C is best. The usual verb that precedes “information” is “exchange.” The correct idiom is “exchange information.” We also want a word that conveys sending or passing around information because of the reference to email.

- It's NOT Choice A because the trees are not changing or altering the information.
- It's NOT Choice B because the trees are not switching or altering the information.
- It's NOT Choice D because the trees are not revising or editing the information being passed around.

QUESTION 8

Choice D is best. Gagliano's study was done in the past, so the correct verb tense should be past tense.

- It's NOT Choice A because proving is a participle, which makes the clause after "proving" just a description and a dependent clause. The sentence would then be missing a verb.
- It's NOT Choice B because "who proves" makes the clause a description clause for Gagliano. The sentence would then be missing a verb.
- It's NOT Choice C because proves is in the present tense, but we need a past tense since her study was done in the past.

QUESTION 9

Choice A is best. This sentence is a transition from the last paragraph, which talks about fungi, to the current paragraph, which talks about plants possessing intellect. The phrase "plants, like fungi, are smarter..." is the perfect transition.

- It's NOT Choice B because sentence 2 doesn't talk about fungi.
- It's NOT Choice C because sentence 3 doesn't talk about fungi.
- It's NOT Choice D because sentence 4 doesn't talk about fungi.

QUESTION 10

Choice D is best. The question proposes adding a sentence about plants dwelling in the ocean, but this is irrelevant for a paragraph talking about plant intelligence.

- It's NOT Choice A because the sentence we are adding doesn't take away from what Daniel says. The two sentences are different topics.
- It's NOT Choice B because although it is true that sentence B reinforces the point, the example it gives is still irrelevant to the paragraph.
- It's NOT Choice C because the added sentence doesn't undermine the passage's main idea. The sentence isn't even about the intellect of fungi and plants, which is the focus of the paragraph.

QUESTION 12

Choice D is best. In this sentence, "increasing rates" applies to innovation, invention, and automation. Therefore, "invention" is sufficient here, as any other descriptions are redundant and render the sentence structure not parallel.

- It's NOT Choice A because the additional detail given about the invention makes the sentence non-parallel and is redundant because of the description "increasing rates of," which applies to invention already.
- It's NOT Choice B because the additional detail given about the invention makes the sentence non-parallel and is redundant because of the description "increasing rates of," which applies to invention already.
- It's NOT Choice C because the additional detail given about the invention makes the sentence non-parallel and is redundant because of the description "increasing rates of," which applies to invention already.

QUESTION 13

Choice C is best. There is a comma at the end of the phrase “from buggy driving to computer programming,” and so to correctly segment this phrase from the rest of the sentence, a comma is required at the beginning of the phrase as well.

- It’s NOT Choice A because an em-dash cannot be used to segment a phrase in the middle of a sentence with a comma. Since there is already a comma at the end of the phrase, a comma should be used to also introduce the phrase.
- It’s NOT Choice B because the lack of punctuation to separate the phrase “from buggy driving to computer programming” is incorrect.
- It’s NOT Choice D because the clause before the semicolon is not an independent clause. A semicolon separates two independent clauses.

QUESTION 14

Choice A is best. The relationship between the two sentences is transitional—because of an idea pitched in the first sentence, the second sentence suggests a possible transitional action to be taken. “Accordingly” is the best transition in this case.

- It’s NOT Choice B because “however” is a contrasting transition word and the universal basic income idea is maintained across both sentences. There is no opposing idea here.
- It’s NOT Choice C because “still” is a contrasting transition word and the universal basic income idea is maintained across both sentences. There is no opposing idea here.
- It’s NOT Choice D because “likewise” suggests that there are two independent but related ideas presented in each of the two sentences. In this case, the second sentence builds off of the first sentence, so a more transitional word should be utilized here.

QUESTION 15

Choice C is best. In this case, the argument that follows is that people should need to work for their money—it should not be handed out freely by the government. This idea is best expressed in choice C.

- It’s NOT Choice A because this choice does not fully discuss the critique of the idea of giving away free money.
- It’s NOT Choice B because this choice does not give an accurate reason for why basic income is critiqued—it will not result in unnecessary contributions from people.
- It’s NOT Choice D because this choice also does not give an accurate reason for why basic income is critiqued—it is not solely about the money but also the motivation to work.

QUESTION 16

Choice D is best. “Since employment has been integral to human understanding of society throughout history” is a subordinating clause, and the best way to connect it to the independent clause that follows is through the use of a comma.

- It’s NOT Choice A because “Since employment has been integral to human understanding of society throughout history” is a subordinating clause; it cannot be a complete sentence on its own.
- It’s NOT Choice B because “Since employment has been integral to human understanding of society throughout history” is a subordinating clause; it cannot be separated from another sentence via a semicolon. Semicolons separate two independent clauses.
- It’s NOT Choice C because the lack of punctuation to separate the subordinating clause from the independent clause makes the sentence a run-on sentence.

QUESTION 17

Choice B is best. Each choice in this question expresses that people volunteer without expecting income. Choice B is the most efficient way to express this idea.

- It’s NOT Choice A because this is not the most efficient way to express this idea that people volunteer without expecting income.
- It’s NOT Choice C because this is not the most efficient way to express this idea that people volunteer without expecting income.
- It’s NOT Choice D because this is not the most efficient way to express this idea that people volunteer without expecting income.

QUESTION 18

Choice B is best. The purpose of this paragraph is to discuss the idea that people might work for other reasons than purely for monetary reward. Hence, choice B is the best option that best describes the motivations behind individual’s desires to work hard.

- It’s NOT Choice A because “treat” refers to the idea that people are working to receive a reward of some sort, as opposed to it being a motivator.
- It’s NOT Choice C because this does not describe the component of working hard.
- It’s NOT Choice D because this is a very specific reason for the misconception of people’s motivations that is not directly supported by the passage.

QUESTION 19

Choice B is best. “Basic income” is a singular noun, and the present singular verb that should be associated with it is “follows.”

- It’s NOT Choice A because “follow” is a plural noun, and “basic income” is singular, which is not consistent.

- It's NOT Choice C because "following" should only be used in the context of a present participle or with a helping verb, and the present tense needed here is not either of these cases.
- It's NOT Choice D because "followed" is in the past tense, and we are referring to the income in the present tense.

QUESTION 20

Choice D is best. The figure presents a new idea that is somewhat independent of the previous paragraphs' discussion—it presents a graphical representation of income. Hence, no transition word is needed to introduce the figure in this case.

- It's NOT Choice A because "in the meantime" suggests that the figure and the previous events in the passage are occurring concurrently, which is not the case here. The figure is not something that exists under the context of a timed event.
- It's NOT Choice B because "notwithstanding" is a contrast transition word and there is no contrast between the ideas in the new paragraph and the information presented earlier in the passage.
- It's NOT Choice C because "consequently" is a transition word that suggests succession of events, and the figure is not something that exists under the context of a timed event.

QUESTION 21

Choice C is best. Based on the figure, the recipients of basic income constitute the biggest category of people, with a smaller subset of recipients being individuals capable of working, and an even smaller set of those people being employed individuals. This is best represented by choice C.

- It's NOT Choice A because this choice suggests that the largest group of people is the group of employed individuals, which is incorrect.
- It's NOT Choice B because not all people are capable of working, as represented by the figure.
- It's NOT Choice D because according to the figure, only a few are capable of working and even fewer work.

QUESTION 22

Choice C is best. Punctuation is not needed in this case because the prepositional phrase "when there is a guaranteed financial support system in place" directly describes an aspect of why devoting time to create art becomes less risky and is not an unnecessary detail.

- It's NOT Choice A because punctuation separating the prepositional phrase is not necessary in the case of crucial details.
- It's NOT Choice B because punctuation separating the prepositional phrase is not necessary in the case of crucial details.

- It's NOT Choice D because punctuation separating the prepositional phrase is not necessary in the case of crucial details.

QUESTION 23

Choice C is best. The information presented in the first sentence incorporates two contrasting ideas separated by a semicolon. "However" is a contrasting transition word and the correct choice.

- It's NOT Choice A because "in particular" suggests that there is a transition to a more detailed idea in the second clause of the first sentence, which is incorrect.
- It's NOT Choice B because "to give an example" is an example transition word and the second clause in the first sentence is not an example of the first.
- It's NOT Choice D because "indeed" is a reaffirming transition word and the two clauses in the first sentence represent contrasting ideas.

QUESTION 24

Choice A is best. "To bring news and media into the modern age" is a subordinating clause and must be separated from an independent clause via a comma.

- It's NOT Choice B because "To bring news and media into the modern age" is a subordinating clause, and it cannot be separated from an independent clause via a semicolon.
- It's NOT Choice C because a colon can only be used if the clause before the colon is an independent clause.
- It's NOT Choice D because "To bring news and media into the modern age" is not a complete sentence on its own.

QUESTION 25

Choice C is best. The focus of this paragraph is on Time Inc. and the process of moving print online. Information about the growth of Meredith Corporation as a company is not important here.

- It's NOT Choice A because there isn't a difference between Time Inc. and Meredith Corporation.
- It's NOT Choice B because the writer has not made this claim before.
- It's NOT Choice D because the emphasis of the paragraph was not on Time Inc.'s previous success in earlier decades.

QUESTION 26

Choice D is best. The context here suggests that Allrecipes had been taking part in an online subscription process since the company was created. Hence, the past tense form of "adjust" is needed here. "Had adjusted" is the best choice.

- It's NOT Choice A because "adjusts" is in the present tense, and the events here occurred in the past.
- It's NOT Choice B because "will adjust" is in the future tense, and the events here occurred in the past.
- It's NOT Choice C because "has adjusted" suggests that Allrecipes is continuing to adjust its process since its inception, which is untrue.

QUESTION 27

Choice B is best. The prepositional phrase here that gives an example of a suggestion is "such as more salt or less baking time." Hence, this phrase needs to be separated from the rest of the sentence with a comma on either side.

- It's NOT Choice A because commas are needed on either side of the prepositional phrase since it is not a necessary detail.
- It's NOT Choice C because the commas are placed incorrectly for separating out the prepositional phrase "such as more salt or less baking time."
- It's NOT Choice D because there is a comma missing after "time" to completely separate the prepositional phrase from the rest of the sentence.

QUESTION 28

Choice A is best. This sentence theorizes what would happen if AllRecipes functioned like Time Inc. websites. We know from previous parts of the passage that Time Inc. operates through costly user subscriptions. Choice A is the best choice; if AllRecipes functioned similarly, users would have to pay for recipes instead of having access to all of them online.

- It's NOT Choice B because this is not the main difference between how AllRecipes and Time Inc. operate. The main difference is between the presentation and access of content.
- It's NOT Choice C because this is an instance of how the two companies are different; it is not the central idea.
- It's NOT Choice D because this is an extreme opinion that is not supported by the rest of the passage.

QUESTION 29

Choice C is best. AllRecipes is an example of a collective, singular noun. Hence "its" is the best possessive pronoun.

- It's NOT Choice A because "their" is a plural possessive pronoun and Allrecipes is a single entity.
- It's NOT Choice B because "there" is not a possessive pronoun.
- It's NOT Choice D because "it's" is a contraction short for "it is." It is not a possessive pronoun.

QUESTION 30

Choice A is best. We are looking for a choice that emphasizes the community aspect of learning cooking tips in a casual way, which is best expressed here.

- It's NOT Choice B because serving food faster is not something that is directly mentioned as a goal in the passage.
- It's NOT Choice C because the purpose of Allrecipes free content is not to impose a culinary authority on people, which is the connotation given here.
- It's NOT Choice D because the free content would not require users to "contribute excessive fare."

QUESTION 31

Choice C is best. We are looking for a word that best expresses a quantitative growth of a database; "grew" is the best choice here.

- It's NOT Choice A because "widened" means to grow in a physical, less quantitative way, which is not the right way to describe a company's database growth.
- It's NOT Choice B because "dilated" means to grow in a qualitative and physical way, which is not the right way to describe a company's database growth.
- It's NOT Choice D because "ripened" means to grow up in a qualitative and physical way, which is not the right way to describe a company's database growth.

QUESTION 32

Choice C is best. This is a case of an embedded question, so a period should be used at the end of the sentence instead of a question mark. Additionally, a comma is not necessary after "why."

- It's NOT Choice A because this is a case of an embedded question, so a period should be used at the end of the sentence instead of a question mark.
- It's NOT Choice B because this is a case of an embedded question, so a period should be used at the end of the sentence instead of a question mark.
- It's NOT Choice D because a comma is not necessary after "why."

QUESTION 33

Choice C is best. The acquisition of Time Inc. by the parent group, Meredith Corporation, is an additional detail that shows how the success of AllRecipes is going to be applied to other companies. Choice C is the best transition word.

- It's NOT Choice A because "unfortunately" has a negative connotation of an unwanted event, which is not the case here.
- It's NOT Choice B because "nevertheless" expresses a contrast between the two sentences, which is not the case here.
- It's NOT Choice D because "similarly" suggests that the two sentences express parallel ideas, which is incorrect. One sentence is an additional detail of the other.

QUESTION 34

Choice A is best. “The Chief Medical Examiner of New York City” is a description of Charles Norris, and it should be surrounded by a comma on each side to separate it from the rest of the sentence.

- It’s NOT Choice B because “the Chief Medical Examiner of New York City” is a description of Charles Norris. It should be surrounded by a comma on each side.
- It’s NOT Choice C because “the Chief Medical Examiner of New York City” is a description of Charles Norris, and should be surrounded by a comma on each side.
- It’s NOT Choice D because the commas after “Chief” and “it” are not necessary.

QUESTION 35

Choice B is best. Choice B is the only choice that presents a direct confession from the US government about the alcohol poisoning instead of a second account reporting the action.

- It’s NOT Choice A because an article by The New York Times is not sufficient evidence to suggest that the story is completely true.
- It’s NOT Choice C because Bellevue Hospital’s actions are not sufficient evidence to suggest that the story is completely true.
- It’s NOT Choice D because in this choice, the government denies involvement with alcohol poisoning, which contests the story.

QUESTION 36

Choice C is best. We are looking for the gerund use of the verb “steal” to express the idea that this was “a common method of obtaining liquor.” “Stealing” is the gerund form.

- It’s NOT Choice A because “stolen” is not the gerund form of “steal.”
- It’s NOT Choice B because “that stealing” is not the gerund form of “steal.”
- It’s NOT Choice D because “steal” is not the gerund form of “steal.”

QUESTION 37

Choice D is best. “So far as to” is the correct idiom here to express the extent to which the government tried to enforce a rule.

- It’s NOT Choice A because “so far” is an incomplete idiom for expressing the extent to which the government tried to enforce a rule.
- It’s NOT Choice B because “as far” is incorrect for using “far” as an idiom. “So far as to” is the correct way.
- It’s NOT Choice C because “as far an” is not the correct way to use “far” as an idiom. “So far as to” is the correct way.

QUESTION 38

Choice C is best. The detail here is given from the perspective of Deborah Blum, and so the most appropriate way to discuss her recollection is “For her part.”

- It's NOT Choice A because "on the other hand" expresses a change in perspective, which is incorrect. We are merely observing a more specific detail of the government's practices.
- It's NOT Choice B because the date detail is not necessary or relevant here to introduce Blum's perspective.
- It's NOT Choice D because Blum's perspective here is an additional detail and not a chronological event.

QUESTION 39

Choice D is best. This is the most efficient way to express what the government did do instead of covering up their efforts.

- It's NOT Choice A because the combination of the two sentences in this way is a little wordy, particularly with the commas used to insert "over time" at that place in the sentence. It is also not necessary to introduce the government's actions via an independent clause ("they gave newspapers fewer and fewer incidents to report") since the action should be parallel with the actions they did not take.
- It's NOT Choice B because the use of multiple commas in the middle of the sentence is wordy and not the most efficient way to combine the two sentences.
- It's NOT Choice C because while the semicolon correctly combines the two sentences, it is not the most efficient way to do so.

QUESTION 40

Choice B is best. The overall idea of the passage is to discuss the angering acts of the government in handling illegal alcohol supplies. Choice B best expresses this emotion.

- It's NOT Choice A because the point of the passage is not to discuss the morality of the government members, but rather how immoral the action is as a whole.
- It's NOT Choice C because the origin of the statistics is not the main idea of the passage.
- It's NOT Choice D because the location of the deaths that took place is not the main idea of the passage.

QUESTION 41

Choice A is best. "Many" is used to express quantitative things (things you can count), and "much" is used to express qualitative things. "Than" expresses a comparison and "then" expresses a transition in time, and so "many more than" is the best way to discuss the number of deaths before and after Prohibition ended.

- It's NOT Choice B because "much" is used to express qualitative things, and the number of deaths is quantitative.
- It's NOT Choice C because "much" is used to express qualitative things, and the number of deaths is quantitative.

- It's NOT Choice D because "then" expresses a transition in time, which is not the correct homophone to use to express a comparison in numbers ("than" is the correct word).

QUESTION 42

Choice D is best. Sentence 6 introduces the idea that members of the government spoke out against the poisoning. Sentence 4 expresses a specific example of a government member (Senator James Reed) discussing his opposition. Hence, sentence 4 should come after sentence 6.

- It's NOT Choice A because sentence 6 introduces the idea that members of the government spoke out against the poisoning, and so sentence 4 cannot come before sentence 6.
- It's NOT Choice B because sentence 6 introduces the idea that members of the government spoke out against the poisoning, and so sentence 4 cannot come before sentence 6.
- It's NOT Choice C because sentence 6 introduces the idea that members of the government spoke out against the poisoning, and so sentence 4 cannot come before sentence 6.

QUESTION 43

Choice C is best. "Eager to forget and move on" is a participle that describes American citizens. Choice C gives the sentence the correct usage of the participle.

- It's NOT Choice A because "being" is not necessary to introduce the participle "eager to forget and move on" that describes the American citizens.
- It's NOT Choice B because "eager to forget and move on" is a participle that describes American citizens and should not be separated with commas.
- It's NOT Choice D because "eager to forget and move on" is a participle that describes American citizens and should not be separated with commas.

QUESTION 44

Choice A is best. The writer wants to express the idea that the Prohibition is similar to wartime politics in terms of the amount of "extensive subterfuge and violence" involved. Hence, the double negative "not unlike" expresses the idea that they are alike.

- It's NOT Choice B because the writer wants to express the idea that the Prohibition is similar to wartime politics, and "unlike" suggests that they are different.
- It's NOT Choice C because the writer wants to express the idea that the Prohibition is similar to wartime politics, and "not like" suggests that they are different.
- It's NOT Choice D because the writer wants to express the idea that the Prohibition is similar to wartime politics, and "different from" suggests that they are different.

SECTION 3 - MATH (NO CALC)

QUESTION 1

Choice C is correct. You are adding together two variables referring to the quantity of fruit, and each of these variables has a coefficient that corresponds to their individual cost. By setting the sum of the two variables equal to a constant (15), you are saying that no matter how many apples or bananas Bella purchases the total amount spent must equal \$15. Therefore the answer is C.

QUESTION 2

Choice C is correct. Distributing the two leaves you with $6x + 8 - 9$. From here, subtract the 9 from 8 and you are left with $6x - 1$, or C. This problem is only testing the student's ability to properly distribute numbers outside of parentheses.

QUESTION 3

Choice B is correct. Since the first equation of the pair already defines x in terms of y , we should rearrange the second equation to the same form.

Subtract $2y$ from both sides of the second equation and multiply both sides by 3:

$$\begin{aligned}x &= 3(-2y + 2) \\x &= -6y + 6\end{aligned}$$

Next, set both equations equal to each other and solve for y :

$$\begin{aligned}y + 6 &= -6y + 6 \\y &= -6y \\y &= 0\end{aligned}$$

Considering B is the only option with 0 as a y value, you know the answer is B. If you are unsure, you can double check by plugging in 0 for y and solving for x in either of your equations.

QUESTION 4

Choice D is correct. This problem involves the simplification of an equation involving complex numbers.

To start, we are given:

$$(5 + i) - (10i^2 - 6i)$$

Considering that $i^2 = -1$, we should simplify that and distribute the negative sign outside of the second parentheses, allowing us to drop the parentheses:

$$5 + i + 10 + 6i = 15 + 7i$$

This is answer D.

**Note: Make sure your student understands that $i^2 = -1$ and not 1, this is a common point of confusion since something remaining negative after squaring is outside of the ordinary.*

QUESTION 5

Choice A is correct. Plug 2 in for x and solve

$$\frac{2^2 - 4 \cdot 2 + 10}{2 + 1} = \frac{4 - 8 + 10}{3} = \frac{6}{3} = 2$$

This is answer A.

QUESTION 6

Choice C is correct. Over the course of 20 years, the truck loses all of its value. So, after 15 years the truck would have lost 75% of its value. This means the truck is worth 25% of the original price, so:

$$0.25 \times \$48,000 = \$12,000$$

This is answer C.

QUESTION 7

Choice B is correct. This problem requires you to complete the square. You need to convert the equation into something that can be factored.

Since $-5 + -5 = -10$ and $-5 \times 5 = 25$, you want to add 2 to the equation so that 23 becomes 25. Then, subtract 2 to keep things balanced:

$$\begin{aligned} &x^2 - 10x + 23 \\ &(x^2 - 10x + 23 + 2) - 2 \end{aligned}$$

Complete the square for the terms contained within the parenthesis:

$$(x - 5)^2 - 2$$

This is answer B.

QUESTION 8

Choice C is correct. We are given that 5 batches of 12 cupcakes have already been made. However, we need to determine the number of batches of 15 cupcakes that are needed to total 180 cupcakes. First, let's write out our equation:

First, write out the equation:

$$180 = 12(5) + 15x$$

$$180 = 60 + 15x$$

After subtracting the constant, you are left with:

$$120 = 15x$$

Divide both sides by 15:

$$8 = x$$

Now we know that 8 batches of 15 cupcakes are necessary to achieve the remaining 120 cupcakes. Adding 8 batches to the original 5 batches gives a total of $8 + 5 = 13$ cupcake batches, which is C.

QUESTION 9

Choice B is correct. This problem requires us to set up a system of inequalities. We know that the total cost of the laptops and tablets (\$700 and \$400 each, respectively) must be less than or equal to \$15,600. This can be written as the inequality:

$$400t + 700l \leq 15,600$$

Next, we need to determine our second inequality. The total number of laptops and tablets purchased must be at least 24. We can write that as:

$$t + l \geq 24$$

It is important to note that **this is enough to solve the problem. The only option which contains those two inequalities is B. The skill of only solving as much as is necessary for complicated problem like this one is important for saving as much time as possible.*

From there, we know that Mr. B needs at least 6 tablets:

$$t \geq 6$$

And at least 5 laptops:

$$l \geq 5$$

These final two inequalities confirm B as the correct answer.

**Also note that this question is not asking to completely solve a system of inequalities, only to set up that system based on the conditions described in the problem.*

QUESTION 10

Choice C is correct. This is more of a conceptual problem. When you factor out a polynomial to solve for a root, you always set each of the factors equal to zero in order to find the root. For the roots given (-6, 4, and 7), the corresponding factors are:

$$x + 6 = 0$$

$$x - 4 = 0$$

$$x - 7 = 0$$

A root value of -6 corresponds to the factor $x + 6$ because if you plug in -6 for x in that factor then it would equal zero. Therefore, the answer is C.

QUESTION 11

Choice D is correct. This problem requires us to really push the extent of our exponent rules. First, we use the rule of like terms in the numerator and denominator to subtract our exponents:

$$a^{(-\frac{5}{4} - \frac{-16}{4})} b^{(\frac{3}{2} - \frac{1}{2})} = a^{(\frac{11}{4})} b^{(1)}$$

Now that we have simplified the exponents, we see that the exponents for b cancel out, leaving b :

$$a^{(\frac{11}{4})} b$$

a is more complicated, so I recommend splitting it into a variable with a whole and a fractional exponent:

$$a^3 \times a^{\frac{-1}{4}} \times b$$

Remember that a denominator in an exponent is the root that you take a term to, in this case we take the fourth root of a . This fraction is also negative, meaning we place this component in the denominator.

This leaves us with our final answer:

$$\frac{a^3 b}{\sqrt[4]{a}}$$

QUESTION 12

Choice B is correct. This question is a bit strange. We are given a foiled-out quadratic equation, which is convenient because it immediately tells us the two zeros for the equation, $x = -1$ and $x = -3$. Because we know that the vertex of a parabola must have an x value falling between its two zeroes, we know that the vertex lies between $x = -1$ and $x = -3$.

There is only one range that we are given which includes this entire portion:

$$-6 < x < 2$$

QUESTION 13

Choice D is correct. Whenever a fraction with a polynomial in the numerator and denominator is simplified into a form with a remainder, you know that you are dealing with a polynomial long division problem. If you need to review polynomial long division, I recommend [this Khan Academy video](#).

First, we divide the first term of the numerator by the first term of the denominator, giving us x as our first quotient value.

Next, we multiply the denominator by x and subtract from the numerator, leaving us with:

$$x^2 - 6x + 4 - x^2 - 2x = -8x + 4$$

We now divide the first term of this value by the first term of the denominator again, giving us -8 as our second quotient value.

Finally, we multiply the denominator by -8 and subtract from our new value, leaving us with:

$$-8x + 4 - (-8x - 16) = -8x + 4 + 8x + 16 = 20$$

Since x cannot divide into 20 we leave it in the form of a remainder, or $\frac{20}{x+2}$, giving us the final term of our quotient.

Combine all terms of the quotient together to get:

$$x - 8 + \frac{20}{x+2}$$

Which is answer D.

QUESTION 14

Choice A is correct. First, we subtract the additional 40 feet of fencing that David will be using for the sliding gates, leaving us with a total of 1200 feet of fencing.

From there, we set up a system of equations:

$$2L + 2W = 1200$$

$$L = 2W$$

Plug in $2W$ for L in the first equation and then solve for W :

$$2(2W) + 2W = 1200$$

$$6W = 1200$$

$$W = 200$$

$$2L + 2(200) = 1200$$

Now plug in 200 for W in the second equation, and solve for L :

$$2L = 800$$

Which provides our final answer, $L=400$, or A.

QUESTION 15

Choice D is correct. Here it is important to remember that the $\frac{1}{4}$ must be distributed to both x and a in the rewritten equation. The simplest way to solve this problem is to focus on only the last component that you would FOIL out, simplified here to:

$$\frac{1}{4}(-a \times a) = -3$$

From here, we multiply $\frac{1}{4}$ by -3 and solve for a :

$$\begin{aligned} -a^2 &= -12 \\ a &= \sqrt{12} \end{aligned}$$

The negatives simplify, leaving us with answer D.

QUESTION 16

17 is correct. First, we want to solve for x in the first equation:

$$\begin{aligned} 6x + 4 &= 52 \\ 6x &= 48 \\ x &= 8 \end{aligned}$$

Now plug $x = 8$ into the second equation to find your answer:

$$2(8) + 1 = 17$$

QUESTION 17

25 is correct. Because $DE = EC$, we know that triangle DEC is isosceles. Therefore, if we can find the one unique angle we know that the two remaining angles will each be equal to each other. To find the unique angle, we use the fact that line DB intersects line AC , meaning that angle BEC is supplementary to angle DEC :

$$180 - 50 = 130 = \angle DEC$$

We have found the unique angle of the isosceles triangle, therefore the remaining two angles are equal to:

$$(180 - 130) \div 2 = 25$$

Considering angle BDC is one of these angles, the answer is 25.

QUESTION 18

3 is correct. There are 2π radians for every 360 degrees of a circle. Therefore, we take:

$$\frac{540}{360}(2\pi) = \frac{3}{2}(2\pi) = 3\pi$$

Therefore, $a = 3$.

If you have a mastery of radians, it could be easier to quickly realize that 540 is 180 greater than 360. Since you have π radians for every 180 degrees, you could tell that the answer is 3π radians.

QUESTION 19

% is correct. To solve this problem we need to create a linear equation in slope-intercept form. To start we find the slope:

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{7 + 3}{2} = 5$$

We are already given that the y-intercept is -3 , so therefore our slope-intercept equation is:

$$y = 5x - 3$$

Now we plug in 0 for y and solve to find a:

$$0 = 5x - 3$$

$$5x = 3$$

$$x = \frac{3}{5}$$

QUESTION 20

4900 is correct. The first thing that we need to do in this problem is perform all necessary multiplication and addition to combine the terms:

$$(4147 + 53n^2) + 5(20n^2 + 120)$$

$$= 4147 + 53n^2 + 100n^2 + 600$$

$$= 153n^2 + 4747$$

From this we know that x and y are 153 and 4747 respectively. Add these together to get your answer:

$$4747 + 153 = 4900$$

SECTION 4 - MATH (CALC)

QUESTION 1

Choice B is correct. When presented with a table, you should first quickly read through the question and then select only the relevant data. Here we need the number of plant B samples that are provided with only water (19) and the total number of plant B samples (26).

Simply set up a ratio of 19/26 and you have your answer, B

QUESTION 2

Choice D is correct. Distribute the negative to the values in the second parentheses and combine like terms to solve this problem:

$$2x^2 - 5 + 6x^2 - 7 = 8x^2 - 12$$

**This is a good reminder about how to distribute negatives into a parentheses; you only use the symbol immediately before a term to determine if you should add or subtract.*

QUESTION 3

Choice C is correct. We know that 1lb = 16 oz. Therefore, for every pound of sugar we get $16/5 = 3.2$ pitchers of lemonade. From here we multiply:

$$3.2 \frac{\text{pitchers}}{\text{pound}} \times 35 \text{ pounds} = 112 \text{ pitchers}$$

This is our answer, C

QUESTION 4

Choice D is correct. This is more of a logic question, and it requires the student to think critically about what they can say from a given piece of information. Looking at each of the answers, D is the most correct. If the people from a random sample from the past year were predominantly unhappy (88%) with the entertainment offered, it would be reasonable to infer that the majority of people from the past year were not happy with the entertainment.

A common incorrect answer would be B, but you can't conclude that 88% of people would currently be unhappy. The airline may have changed its entertainment options from the past year, and you lack the precision to say "at least 88% would be unhappy" even if you were talking about the past.

QUESTION 5

Choice C is correct. First, let's rearrange the inequality into the slope-intercept form by subtracting over $9x$:

$$-4y < -9x + 6$$

From here, the easiest approach is simply to plug in your options (dividing by -4 on both sides is an option, but make sure you flip your inequality sign if you choose to do that)

- I. $-4 \times 8 < -9 \times 2 + 6$, $-32 < -12$ *TRUE*
- II. $-4 \times 2 < -9 \times 4 + 6$, $-8 < -30$ *FALSE*
- III. $-4 \times 1 < -9 \times 1 + 6$, $-4 < -3$ *TRUE*

Since I and III are true, the correct answer is C.

QUESTION 6

Choice C is correct. Since we are only interested in the case where $x = 2$, we can treat it as if x is the constant and a is the variable we are solving for, plugging in 2 for x :

$$(2a - 4)^2 = 64$$
$$\sqrt{(2a - 4)^2} = \sqrt{64}$$

Now we do some further algebra, and we are left with our answer:

$$2a - 4 = 8$$

$$2a = 12$$

$$a = 6$$

Which is C.

QUESTION 7

Choice A is correct. The curve of this graph is negative, meaning with greater wait time customers satisfaction scores decrease. Therefore, the correct answer is A.

**Note that some students might choose C here. The problem is that answer C states an individual satisfaction instead of an average. The curve can tell you the change in average customer satisfaction, but it cannot tell you the change in an individual's satisfaction.*

QUESTION 8

Choice C is correct. Looking at the best-fit graph, find the y value that corresponds with an x value of 6. This looks like approximately 3.5, which is closest to C, 3.3.

QUESTION 9

Choice A is correct. We need to rearrange this equation into a form where $ax - b$ is isolated on one side of the equation.

$$6ax - 6b = 55 - 7$$

First, let's subtract over the constant:

Next, let's factor out the 6 from both terms on the left of the equation:

$$6(ax - b) = 48$$

Finally, divide both sides by 6, and you have your answer:

$$ax - b = 8$$

QUESTION 10

Choice D is correct. If she runs for 30 minutes that means she runs for:

$$60 \frac{\text{seconds}}{\text{minute}} \times 30 \text{ minutes} = 1800 \text{ seconds}$$

She spends 6% of that time sprinting, so multiply 1800 by 0.06 to get your answer:

$$1800s(0.06) = 108s \text{ of sprinting}$$

QUESTION 11

Choice A is correct.

First let's set up the equation for the total number of packages, with c being college-ruled and w being wide-ruled:

$$c + w = 65, \text{ OR } 65 - c = w$$

Now, let's set up the equation for the quantity of paper. There are 300 sheets in each college-ruled package and 225 sheets in each wide ruled package:

$$300c + 225w = 15,000$$

Since we only need to set up the system of equations and are not required to solve the system, this is as far as we go—our equations are in line with answer A.

QUESTION 12

Choice B is correct. Here we set up an equation that allows us to solve for the original price p of the take-out. Since the price we paid is 8% greater than the original price, we can set up the equation as:

$$\$46.71 = 1.08p$$

Then, rearrange to solve for p :

$$p = 43.25$$

This is our answer, B.

QUESTION 13

Choice B is correct. During any point in which the curve of the graph is negative, we know that the ship is travelling closer to its home port. There is a period of 6 total days where the curve is negative and only 4 days where the curve is positive. Therefore, we know that B is false.

QUESTION 14

Choice D is correct. We know that the internal angles of a 4 sided object must add up to equal 360 degrees (the sum of the internal angles of a polygon = $180 \times (n - 2)$ where n = the number of sides of a polygon). Therefore, we can set up an equation to solve for x :

$$3x + x - 52 = 360$$

Add 52 to 360 and combine the x values to get:

$$4x = 412$$

Now divide both sides by 4 to get your answer, $x = 103$, which is D

QUESTION 15

Choice B is correct. In this problem, we are given the weight for a given number of apples and asked to solve for the number of apples necessary to achieve a different weight. We can set up a system of two ratios in order to solve this problem:

$$\frac{45 \text{ apples}}{14.5 \text{ lbs}} = \frac{x}{150 \text{ lbs}}$$

Now solve for x through cross-multiplication:

$$(45)(150) = 14.5x$$
$$x = \frac{6750}{14.5}$$

and you are left with:

$$x = 465.5 \text{ apples}$$

This value is closest to B, 450 apples.

**Note: one way to quickly solve this problem is to realize that 150lbs. is approximately 10x greater than 14.5lbs. This means that you need ~10x the apples to reach that weight.*

QUESTION 16

Choice D is correct. Here we are given a system of two equations and asked to solve for the difference $y - x$.

First, we should solve for y in the second equation by multiplying over the 3:

$$y = 12 \times 3 = 36$$

Next, we can plug in 36 for y in our first equation to solve for x:

$$x + 36 = 50$$

$$x = 14$$

Now we simply take 36 and subtract 14 from it to find our answer:

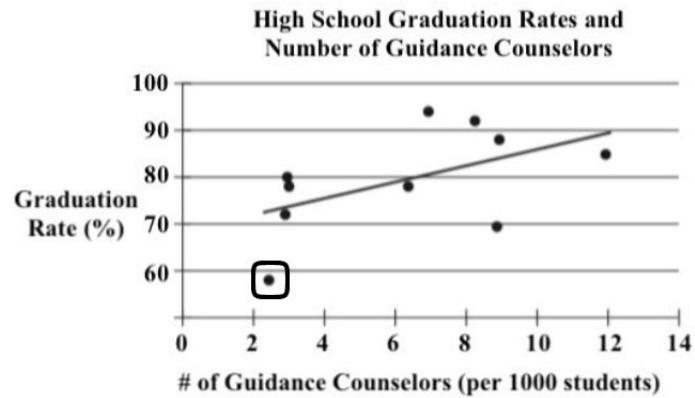
$$36 - 14 = 22$$

QUESTION 17

Choice A is correct. When approaching a word problem like this, it is a good idea for students to pull out relevant information and relate it to the equation as they go—the total cost y consists of a \$5.50 entrance fee and a \$0.75 charge for every sample. Because it is a flat starting value, the y-intercept is \$5.50, the cost of entrance to the festival before you add on any additional charges. This is A

QUESTION 18

Choice B is correct. First we find the school with the lowest average graduation rate—the school located around the 2 guidance counselor mark. Next, we are looking for the greatest deviation among those points from the line of best fit.



This point is further from the line of best fit than any of the others. At that point, the line of best fit has a y-value of approximately 72%. The point itself has a y-value of approximately 58%, taking the difference between these points will give us our answer.

$$72\% - 58\% = 14\%$$

This is closest to answer B

QUESTION 19

Choice A is correct. Using the second equation we want to rearrange to solve for b:

$$P = \frac{10+b}{25}$$

$$25P = 10 + b$$

$$b = 25P - 10$$

QUESTION 20**Choice A is correct.**

For this problem, first we want to rearrange the first equation to give $\sqrt{3ab}$ in terms of P:

$$P = \frac{\sqrt{3ab}}{40}$$

$$40P = \sqrt{3ab}$$

Now we can plug the second equation in for P:

$$40\left(\frac{10+b}{25}\right) = \sqrt{3ab}$$

Since $40/25$ can be simplified to $8/5$, our final equation is:

$$\frac{8(10+b)}{5} = \sqrt{3ab}$$

QUESTION 21

Choice C is correct. This question is only asking for you to determine the slope of the line of best fit. Pick two points along the line of best fit, I will choose (20,18) and (40,33).

$$\frac{y_2 - y_1}{x_2 - x_1} = m$$

$$\frac{33 - 18}{40 - 20} = \frac{15}{20} = 0.75$$

Therefore the answer is 0.75, which is C

QUESTION 22

Choice B is correct. In order to determine the median, you need to determine the middle value of a set of numbers. Since we have 9 results here, the middle value will be the 5th greatest percentage. Writing the numbers out in order, we have:

$$61.4, 68.7, 69.5, 72.9, \underline{77.0}, 78.6, 81.2, 84.3, 89.2$$

The 5th number is 77.0, which is our median value. Now we take the median percent of passing students from these 9 classes and subtract the statewide median.

$$77.0\% - 74.6\% = 2.4\%$$

This gives us B.

QUESTION 23

Choice C is correct. For this question we should first determine the volume of an empty thermos and then subtract the volume of water filling the thermos. The volume of a cylinder is one of the equations that is given to students at the beginning of the exam:

$$V_{therm} = A_{base} \times height$$
$$V_{therm} = 50 \times 13 = 650in^3$$

Therefore, the volume of our empty thermos is 650 cubic inches. Now we subtract the portion of the thermos taken up by water and that will give us the portion of the volume taken up by ice.

$$650 - 450 = 200in^3$$

This is C.

QUESTION 24

Choice A is correct. This question doesn't require any math only an understanding of the components of a slope-intercept form equation. Considering this is a graph of height over time, with height decreasing after an object is dropped from the cliff, and 482 is the y intercept (or height at $t = 0$), 482 must be the height of the cliff in meters above the ground.

QUESTION 25

Choice B is correct. This problem only requires that we determine the ratio between p and k , and then set up an equation to represent that. First, choosing the first pair of values from the chart we get:

$$\frac{33.7}{4.89} = 6.89$$

Simplifying our answer, $6.9p = k$, which is B

QUESTION 26

Choice B is correct. Here we can solve for the pressure value in atmospheres in the two locations, and then subtract.

To find the pressure in atmospheres in the Dead Sea, take:

$$\frac{106.7}{101.3} = 1.0533$$

To find the pressure in atmospheres at the Mt. Everest summit, take:

$$\frac{33.7}{101.3} = 0.3326$$

Now take the difference between the two:

$$1.0533atm - 0.3326atm = 0.7207$$

QUESTION 27

Choice A is correct. This question requires you to recognize the type of growth that is occurring, which is exponential. The population increases by 6.8% in size every month,

meaning that each subsequent month the population increases by a greater absolute number. This is best represented by:

$$P_{final} = P_{initial}(1 + rate)^{years}$$

Therefore, considering our population is starting at 9 million and growing at a rate of 6.8%, this population's growth is best represented by the equation:

$$P = 9(1.068)^t$$

QUESTION 28

Choice C is correct. The slope is defined as $\frac{\text{rise}}{\text{run}}$, or $\frac{y}{x}$. First we need to determine the slope of this line. Conveniently, since this line passes through the origin, the slope is equal to $\frac{12}{4} = 3$.

**Note that the question asks for the ratio of a to b, not b to a. Therefore the answer is the inverse of the slope, $\frac{1}{3}$, or "1 to 3", which is C.*

QUESTION 29

Choice D is correct. For this question the student needs to know the equation for a circle:

$$(x - h)^2 + (y - k)^2 = r^2$$

Where (h,k) are the coordinates for the center of the circle. Therefore, we know that this is a circle with a radius of 5 and the centerpoint (4,-2).

Since you know that the radius of the circle is 5, it is not possible to have a point contained in the circle that has an x-value greater than 5 units away from 4. For option D, $10 - 4 = 6$, therefore D cannot be contained within the circle.

QUESTION 30

Choice B is correct. To calculate the percent increase, you take the current value minus the initial value and then divide by the initial value and multiply by 100. First, let's do this for the period between 2010 and 2015:

$$\frac{5500000 - 4000000}{4000000} \times 100 = 37.5\% \text{ increase}$$

Since the owner expects this to be only half of the percent increase from 2015 to 2020 (he expects the percent increase to double), we can solve for the final value by doubling the percent increase using the same equation, and solving for final value.

$$\begin{aligned} \frac{x - 5,500,000}{5,500,000} \times 100 &= 75\% \\ x - 5,500,000 &= 0.75(5,500,000) \\ x &= (0.75)(5,500,000) + 5,500,000 \\ x &= 9,625,000 \end{aligned}$$

QUESTION 31

612 is correct. If the cost of ribbon is \$1.50 per yard and the customer purchased \$306 of ribbon take:

$$\frac{306}{1.50} = 204 \text{ yards}$$

Now, multiply that answer by 3 feet per yard:

$$204 \times 3 = 612$$

QUESTION 32

0.75 is correct. To find the slope, we only need two points on the line. Let's take the two simplest points to work with, (1,-3) and (9,3). From here we use the slope equation:

$$\frac{y_2 - y_1}{x_2 - x_1} = m$$

$$\frac{-3 - 3}{1 - 9} = \frac{-6}{-8} = 0.75$$

QUESTION 33

12 is correct. To solve this problem we need to set up a system of equations.

First, set up the equation for the students score, in which each correct answer is multiplied by 6 and that is subtracted from every incorrect answer:

$$6c - i = 108$$

Next, set up the equation for the total number of questions. This is equal to the total number of correct and incorrect answers:

$$c + i = 32$$

Now, solve for i in our first equation:

$$-i = 108 - 6c$$

$$i = 6c - 108$$

Then plug this in for i in our second equation and solve for c :

$$c + 6c - 108 = 32$$

$$7c = 140$$

$$c = 20$$

Finally, plug this value for c back into the second equation and solve for i :

$$20 + i = 32$$

$$i = 12 \text{ incorrect questions}$$

QUESTION 34

11/36 is correct. The full circle is covered by 360° , therefore the area shaded by 110° would be a fraction of $\frac{110}{360} = \frac{11}{36}$, which is your answer.

QUESTION 35

1 or 3 is correct.

Because both equations are already set equal to y , it is possible to set these two equations equal to each other:

$$9x - 11 = x^2 + 5x - 8$$

From here, we should isolate everything to one side:

$$0 = x^2 - 4x + 3$$

Now, we factor out our equation. We need to find roots that multiply together to equal 3, and add together to equal -4 . -1 and -3 work for this purpose, so we should rewrite our equation as:

$$0 = (x - 1)(x - 3)$$

Solving for x we get roots of 1 and 3 for x — these are your two possible solutions.

QUESTION 36

7.5 is correct. Tangent of angle B is equal to opposite/adjacent. Therefore, the ratio of the opposite side to the adjacent side for both triangle BDE and triangle BAC is $5/12$. There are multiple ways to go about this problem correctly, but here is one solution.

We are given that $BC = 26$ and $DA = 6$

First, let's solve for angle B by taking the inverse tangent:

$$\tan^{-1}\left(\frac{5}{12}\right) = 22.6199$$

Next, let's determine the length of side BA by using cosine (adjacent/hypotenuse):

$$\cos(22.6199) = \frac{x}{26}$$

$$\frac{26}{\cos(22.6199)} = x = 24$$

From here we can subtract segment DA from side length BA to get length BD:

$$24 - 6 = 18$$

Finally, returning to our tan ratio, we know that $DE/BD = 5/12$, so we can solve for side DE using a set of ratios:

$$\frac{5}{12} = \frac{DE}{18}$$
$$(18)\left(\frac{5}{12}\right) = DE = 7.5$$

QUESTION 37

1/12 is correct. Of all the spins, 5 landed on green during trial 2. Out of 60 spins, this is equivalent to:

$$\frac{5}{60} = \frac{1}{12}$$

**Note the wording of this question, you are selecting a spin that already happened ("spin would be from trial 2"). This is not the same as if you were predicting the probability of a spin landing on green during trial 2 before starting any trials.*

QUESTION 38

20 is correct. If you add an additional color, you would have a total of 6 colors. Considering all colors are evenly spaced, you would have a probability $\frac{1}{6}$ of landing on any given color. Given 60 spins, you would land on any one color $\frac{1}{6} \times 60 = 10$ times.

Considering this question is asking about landing on either red or blue (2 colors), you multiply this value by 2, giving you 20.