

REVISING/EDITING PART A

1. The question asks for the best way to combine the sentences to clarify the relationship between the ideas.
 - A. Incorrect. Even though the two ideas from the original sentences are incorporated into the combined sentence, the use of the conjunction “while” in the first part of the sentence suggests that there is a simultaneous but unrelated relationship between the two ideas, which is incorrect.
 - B. Incorrect. The combined sentence incorporates the ideas from both sentences, but the conjunction “although” suggests that scientists were allowed to collect data even though there were flyby missions, which is an inaccurate way to express the relationship between the ideas.
 - C. **CORRECT.** This sentence is the best way to combine the sentences because it accurately reflects the relationship between the ideas by using the nonrestrictive clause “which allow scientists to collect data about the planet and its moons” to describe the purpose of the flyby missions. (Nonrestrictive clauses are adjective clauses that give additional information about a word or phrase. They sometimes begin with the relative pronoun “which” and are set off by commas.) The idea that the missions “have been happening since 1973” follows the nonrestrictive clause.
 - D. Incorrect. The combined sentence uses the conjunction “but” to connect the ideas in the two original sentences. This suggests an adverse relationship between ideas, which is an inaccurate way to connect the ideas expressed in the original sentences.

2. The question asks for the identification of the sentence that has an error in its construction and should be revised.
- E. Incorrect. There are no errors in the structure of sentence 1. The clause “who played in the Long Island area at the time” correctly modifies the noun “New York Nets.” “Who” is the correct relative pronoun to serve as the subject of the modifying clause because it refers to people rather than objects or things.
 - F. **CORRECT.** Sentence 2 contains a structural error. The current placement of the clause “where the Nets played for thirty-five seasons” suggests the clause is modifying the term “financial troubles,” which is illogical. The clause “where the Nets played for thirty-five seasons” should immediately follow the location, “New Jersey.” A revised version of the sentence might read, “After the team had financial troubles, the owner of the Nets decided to take the team to New Jersey, where the Nets played for thirty-five seasons.”
 - G. Incorrect. There are no errors in the structure of sentence 3. The phrase “including two appearances in the NBA finals” is a nonrestrictive phrase that provides further detail about the team’s “sixteen playoff appearances.” The phrase is set off by a comma because it is not essential to understanding the meaning of the sentence.
 - H. Incorrect. There are no errors in the structure of sentence 4. The clause “where the team now plays under the name the Brooklyn Nets” is a nonrestrictive clause that provides further detail about the team after its move back to New York in 2012. The phrase is set off by a comma because it is not essential to understanding the meaning of the sentence.
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3. The question asks how the paragraph should be revised.
- A. Incorrect. The revisions in this option introduce new errors. The word “spent” is correct in the past tense because that is the tense used throughout the rest of the paragraph. Additionally, adding a comma after the word “play” would be incorrect because it would separate the prepositional phrase “at the community theater” from the rest of the sentence.
 - B. Incorrect. The revisions in this option introduce new errors. The word “did” is correct as written in the past tense because the past tense is used throughout the paragraph. There is no comma needed after the word “projection” because “so” is not functioning as a conjunction but rather as part of the conjunction phrase “so that,” which does not take a comma.
 - C. **CORRECT.** Changing the word “studies” from the present tense to the past tense “studied” is necessary to match the past tense established in the paragraph (“spent,” “recited”). Additionally, the comma after the word “emotions” needs to be removed because the words “emotions and motivations” are part of a group (series) of two elements, and when there are only two elements in a series, a comma is not used.
 - D. Incorrect. The revisions in this option introduce new errors. The word “recited” is correct as written in the past tense because the past tense is used throughout the paragraph. Also, removing the comma after “times” is incorrect because the comma is needed in order to separate the modifying phrase “making slight adjustments and improvements to her performance each time” from the main clause.

4. The question asks for the revisions that are needed to correct errors in the paragraph.
- E. Incorrect. The revisions introduce new errors. The colon after “wonder” is needed to set off the question “what is the difference between the two?” from the rest of the sentence. In addition, changing the verb “is” to “are” would be incorrect with the use of the singular noun “difference,” which is the subject in the question.
 - F. Incorrect. The revisions introduce new errors. The comma following the introductory phrase “To start with” helps with clarity and is needed to separate the phrase from the rest of the sentence. Changing “it is” to “they are” would be incorrect with the use of the singular noun “butterfat content,” which is what the words “it is” refer to in the sentence.
 - G. Incorrect. The revisions introduce new errors. The comma following “process” is necessary to set off the nonrestrictive clause “which adds less air to the frozen treat” from the rest of the sentence. This clause is considered a nonrestrictive clause because it provides additional, but not essential, information about the mixing process. Changing the verb “makes” to “make” would be incorrect with the use of the singular noun “mixing process,” which is the subject of the sentence.
 - H. **CORRECT.** Deleting the comma after “gelato” would include the clause “and allow it to melt more quickly” with the first part of the clause “which enhances the texture and flavor of the gelato.” The word “and” between the two verb phrases (“enhances the texture and flavor of the gelato” and “allow it to melt more quickly”) indicates that the two verb phrases share a subject, “which” (referring to the act of serving gelato 10 to 15 degrees warmer than ice cream). The two ideas should not be separated by a comma within the clause. The entire clause “which enhances the texture and flavor of the gelato and allow it to melt more quickly” should be separated from the main clause only by the comma after “cream” because the entire clause is a nonrestrictive clause. This clause provides additional, but not essential, information about the purpose of serving gelato at a warmer temperature than when serving ice cream. Changing the verb “allow” to “allows” is also necessary to match the use of the singular noun “gelato,” which is the subject of the sentence.

REVISING/EDITING PART B

Martial Arts for the Mind and Body

5. The question asks for the best way to combine sentences 2 and 3.
- A. Incorrect. This way of combining sentences 2 and 3 places unnecessary emphasis on characterizing historians, and it does not clearly show the contrasting relationship between the idea from sentence 2 that historians do not know the exact origins of martial arts and the idea in sentence 3 that historians know that martial arts have a long history.
 - B. **CORRECT.** This option is correct because the word “while” at the beginning of the sentence best indicates the contrast between the ideas in sentences 2 and 3. Sentence 2 states that historians do not know the exact origins of martial arts (“unsure of exactly when and where”). Sentence 3 describes what historians do know about these origins (“practiced by several different societies for many centuries”). This combination indicates that historians have a general understanding about the origins of martial arts even though they cannot confirm the exact details.
 - C. Incorrect. Starting this sentence with the word “because” indicates a cause-and-effect relationship that does not exist between the ideas in the original sentences. The idea from sentence 3, that historians know that martial arts have been practiced for many years, did not cause the idea in sentence 2, that historians do not know exact details about the origins of martial arts.
 - D. Incorrect. The conjunction (connecting word) “and” does not clearly show how the ideas in sentences 2 and 3 are related. While “and” can be used to combine related sentences, it does not demonstrate the contrast between the idea in sentence 2, that historians do not know the exact origins of martial arts, and the idea in sentence 3, that historians know that martial arts have a long history.

6. The question asks where sentence 10 should be moved to improve the organization of the second paragraph.
- E. Incorrect. Starting this paragraph with sentence 10 would weaken the paragraph's organization because it would place a supporting detail sentence (sentence 10) before the topic sentence (sentence 6). Sentence 6 belongs at the beginning of the paragraph because it introduces the topic—the qualities of discipline, focus, and respect. Sentence 10 supports the key idea of the paragraph, that these qualities can be developed through the study of martial arts. If sentence 10 preceded sentence 6, the transitional phrase "for example" would refer to an unspecified topic and idea.
 - F. Incorrect. Sentence 6 presents the idea that "discipline, focus, and respect are important qualities for everyone to have," but the example in sentence 10 does not directly relate to this idea. Sentence 10 explains how martial arts develop these qualities, not why they are important qualities to have. Because sentence 10 is not directly related to the idea in sentence 6 (the qualities are important), it should not follow sentence 6.
 - G. Incorrect. Sentences 7 and 8 should not be separated, because the idea presented in sentence 8—that "the study of martial arts can provide an opportunity to develop these skills"—is directly related to the idea from sentence 7—that the skills of discipline, focus, and respect "are not innate; they must be learned and practiced." Sentence 10 supports the idea from sentence 8 by describing an example from a typical martial arts class, so sentence 10 should not precede sentence 8.
 - H. **CORRECT.** This option is correct because sentence 10 logically follows and supports the idea in sentence 8 that "the study of martial arts can provide an opportunity to develop" the qualities of discipline, focus, and respect. Sentence 10 explains this idea with examples, describing three specific ways that students in a typical tae kwon do class develop discipline, focus, and respect—by "diligently practicing," "listening carefully," and "bowing to the instructor and following directions."
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7. The question asks for the revision of sentence 12 that best maintains the formal style established in the passage.
- A. Incorrect. The phrases "A lot," "put up with," "difficult things," and "do well in school" are worded informally; therefore, this sentence does not consistently maintain the formal style established in the passage.
 - B. Incorrect. The phrases "deal with," "tough situations," "stay on top of," and "do well in life" are worded informally; therefore, this sentence does not consistently maintain the formal style established in the passage.
 - C. **CORRECT.** This option is correct because it uses clear and scholarly wording throughout the whole sentence. The phrases "many teenagers," "encounter challenges," and "succeed both academically and personally" make the sentence's style more consistently formal than the other options.
 - D. Incorrect. The phrases "A lot," "face problems," and "keep up with" are worded informally; therefore, this sentence does not consistently maintain the formal style established in the passage.

8. The question asks for the transitional phrase that should be added to the beginning of sentence 17.
- E. **CORRECT.** This option is correct because it best shows the chronological progression between the ideas in sentence 16—progressing through levels of achievement “requires students to take responsibility and be accountable for achieving set goals”—and the ideas in sentence 17—“students gain confidence and experience companionship with other students who are progressing through the ranks.” The transitional phrase “over time” shows the gradual nature of the relationship between the cause in sentence 16 and the effect in sentence 17.
 - F. Incorrect. Though the ideas in sentences 16 and 17 are related, “in fact” does not show the correct relationship between the ideas. The transitional phrase “in fact” emphasizes an idea by giving a detail or example of greater intensity, but the ideas in sentence 16—progressing through levels “requires students to take responsibility and be accountable for achieving set goals”—and the ideas in sentence 17—“students gain confidence and experience companionship with other students who are progressing through the ranks”—are related by cause and effect rather than by (degree of) intensity.
 - G. Incorrect. The transitional phrase “even so” is used to connect opposing ideas, but the ideas in sentence 16—progressing through levels “requires students to take responsibility and be accountable for achieving set goals”—does not contrast with the ideas in sentence 17—“students gain confidence and experience companionship with other students who are progressing through the ranks.”
 - H. Incorrect. Although the transitional phrase “for instance” connects an idea with a related example, it does not show the cause-and-effect relationship between the ideas in sentence 16—progressing through levels “requires students to take responsibility and be accountable for achieving set goals”—and the ideas in sentence 17—“students gain confidence and experience companionship with other students who are progressing through the ranks.”
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9. The question asks for the sentence that would best follow and support sentence 18.
- A. Incorrect. Though the idea of advancing one’s career is certainly appealing for adults, this benefit is not directly tied to “health and fitness” and, therefore, does not support sentence 18.
 - B. Incorrect. While the passage does discuss potential benefits related to discipline, focus, and confidence (sentences 6 and 11), sentence 18 is solely related to health and fitness benefits and should not be followed by a description of “other skills.”
 - C. **CORRECT.** This option is correct because sentence 18 conveys that the greatest benefit of practicing martial arts is “health and fitness,” and the sentence illustrates some specific ways that martial arts training helps improve physical fitness—“strengthen their heart, boost endurance, improve balance, and develop muscle tone.”
 - D. Incorrect. Some readers may choose this option because sentence 5, sentence 15, and sentence 18 discuss the physical aspects of practicing martial arts, but the idea that people who practice martial arts are concerned about their overall health does not provide further details about the connection between training and health.

- 10.** The question asks for the concluding sentence that best replaces sentence 23 and supports the topic presented in the passage.
- E.** Incorrect. The phrase “the skills needed to progress in rank” is vague, and progressing in rank is not related to the overall topic of the passage, which is the benefits of studying martial arts. The topic of the passage is not the “many ways to begin studying martial arts” or how “people can easily discover” the benefits of martial arts.
 - F. CORRECT.** This option is correct because it best supports the topic of the passage—the benefits of studying martial arts—by stating two reasons why people should study martial arts: to “experience the satisfaction of achieving goals while also improving themselves.”
 - G.** Incorrect. Some readers may choose this option because it refers to the benefits of martial arts, but the word “because” and the detail that “enrollment in martial arts courses has increased” make this sentence unrelated to the overall topic of the passage, which is about the benefits of studying martial arts, not the number of people who participate.
 - H.** Incorrect. Although the benefits of studying martial arts are described for both teens (in the third paragraph) and adults (in the fourth paragraph), the topic of the passage is the overall benefits of studying martial arts, which include mental discipline (discussed in the first, second, and third paragraphs) in addition to health benefits. Furthermore, the passage does not compare the health effects of studying martial arts across age groups.

READING COMPREHENSION

Wolves of the Sea

- 11.** The question asks how the details about Darimont in paragraph 1 contribute to a central idea of the passage.
- A.** Incorrect. Although paragraph 1 includes the detail that the Great Bear Rainforest is a protected area, finding an ideal location to study wolves is not a central idea of the passage. Additionally, the paragraph does not describe Darimont's beliefs about the Great Bear Rainforest.
 - B. CORRECT.** Paragraph 1 explains why Darimont wanted to consult with Chester Starr, an elder of the Heiltsuk Nation: "When biologist Chris Darimont began to study these wolves, he wanted to confer with local First Nations groups, as aboriginal Canadians are known, in order to learn what they knew about these wolves." The details in paragraph 1 show that Darimont valued Starr's perspective ("What Starr had to say about the wolves changed Darimont's perception of the animals"), even though it was different from Darimont's own perspective at that time.
 - C.** Incorrect. Paragraphs 1 and 2 show that Darimont did not initially believe that the mainland wolves and the coastal wolves were different groups. Therefore, the details in paragraph 1 do not provide evidence that Darimont chose Great Bear Rainforest because of an expectation that there were separate groups of island wolves and timber wolves. Instead, he chose the Great Bear Rainforest for the opportunity to study what he had presumed to be one group of wolves.
 - D.** Incorrect. Although Darimont sought out Chester Starr, an elder of the Heiltsuk Nation, before beginning his research, Darimont's purpose in doing so was not to request Starr's permission to study the wolves but to learn from Starr's expert knowledge of the area and its wolves ("When biologist Chris Darimont began to study these wolves, he wanted to confer with local First Nations groups, as aboriginal Canadians are known, in order to learn what they knew about these wolves" [paragraph 1]).

- 12.** The question asks why the author includes details about the conversation between Starr and Darimont in paragraph 2.
- E.** Incorrect. The details in paragraph 2 do not explain why Starr had closely observed the two groups of wolves. Instead, they convey that Starr believed the wolves to be separate groups (“Starr asked Darimont which wolves he and his team were going to study—the timber wolves (mainland wolves) or the coastal wolves on the islands”), a supposition that intrigued Darimont and ultimately changed the course of his research study.
 - F.** Incorrect. Although paragraph 1 indicates that Darimont did hope to work with Starr (“he wanted to confer with local First Nations groups, as aboriginal Canadians are known, in order to learn what they knew about these wolves”), Darimont did not initially plan to study both groups of wolves in the area because, as the conversation in paragraph 2 indicates, he did not initially know they were two distinct groups of wolves.
 - G.** Incorrect. The details about the conversation in paragraph 2 highlight that Darimont was eager to learn from Starr’s knowledge of the wolves (“Darimont was intrigued by Starr’s classification of the wolves as two different groups”), but they do not indicate that Darimont expected Starr’s help to find the wolves.
 - H. CORRECT.** According to paragraph 2, Starr wanted to know which group of wolves Darimont planned to study—“the timber wolves (mainland wolves) or the coastal wolves on the islands.” The author states that the question “took Darimont by surprise,” adding that “Darimont was intrigued by Starr’s classification of the wolves as two different groups.” The author adds that Darimont was initially “hesitant to accept the idea” that the wolves were separate groups but ultimately spent years studying the two groups of wolves. These details indicate that the question Starr posed to Darimont forced Darimont to reevaluate his initial assumption “that the wolves that are sometimes spotted swimming between islands and eating salmon are the same wolves that live on the mainland” and investigate Starr’s observation that the wolves had separated into two distinct groups.

- 13.** The question asks what the phrase “hard biological evidence” in the sentence from paragraph 4 conveys about the goal of the research team.
- A.** Incorrect. Although the research team followed a labor-intensive procedure, the phrase “hard biological evidence” refers to the product of their scientific research (the genetic markers revealed within the DNA samples), not the process by which they collected it. Their goal was not to develop a procedure for data collection but to determine precisely how many species of wolf were present in the area.
 - B. CORRECT.** The research team wanted to prove or disprove the theory that two separate groups of wolves were present in the area, an idea that was already supported by the observations of scientists and local indigenous people. The phrase “hard biological evidence” conveys that the scientists wanted to bolster their observations of the wolves with concrete scientific data about the wolves’ biological makeup. The goal of the researchers was to use the data to prove how many species of wolf were present in the area of the study.
 - C.** Incorrect. The research team gathered extensive data during their study (“After collecting and analyzing the DNA in 800 samples of gray fur and wolf waste” [paragraph 4]), and their goal in doing so was to evaluate a single theory about the wolves: that the wolves had evolved into two separate and genetically distinct species. The research team did not conduct the study in order to evaluate multiple theories about the diets of the wolves.
 - D.** Incorrect. The phrase “hard biological evidence” does not suggest that the research team was hoping to discover if the new data would provide information that was different from previous studies. In fact, the goal of the research team was to use the genetic data to supplement their initial sources of information about the wolves and their own observations from the field.

14. The question asks for the most likely reason why the author uses the word “admits” in paragraph 5.
- E. Incorrect. The word “admits” highlights the surprising difference between Darimont’s initial idea and the conclusion he ultimately drew from the results of the study. Though Darimont’s genetic research did, in fact, verify the field observations of the wolves, this does not explain the author’s use of the word “admits” in paragraph 5.
 - F. Incorrect. The conclusion that Darimont reached was actually quite original, since biologists widely believed the two separate groups of wolves to be one (“Biologists had always believed that the wolves that are sometimes spotted swimming between islands and eating salmon are the same wolves that live on the mainland,” [paragraph 2]). The author uses the word “admits” in paragraph 5 to emphasize how unexpected Darimont found the conclusion to be (“The distances between the mainland and the islands are small, less than a mile. Why would the wolves on the islands be any different from the wolves on the mainland?” [paragraph 2]), not to indicate that the study was a disappointment.
 - G. **CORRECT.** The use of “admits” emphasizes that Darimont found the idea of two species of wolves “ ‘totally bizarre at first’ ” (paragraph 5) but ultimately proved it to be correct. Paragraph 2 suggests that Darimont, like other scientists, “had always believed that the wolves that are sometimes spotted swimming between islands and eating salmon are the same wolves that live on the mainland.” Therefore, the results of the study were likely to strike biologists as bizarre, and the use of the word “admits” in paragraph 5 highlights Darimont’s shift from doubt to confirmation.
 - H. Incorrect. Darimont’s team conducted the research that helped him confirm Starr’s idea and draw the conclusion that the wolves were separate species (“After collecting and analyzing the DNA in 800 samples of gray fur and wolf waste, researchers could produce hard biological evidence that sea wolves had genetic markers that made them distinct from the mainland wolves” [paragraph 4]). However, the opinions of Darimont’s research team are not described in the passage, and the word “admits” does not indicate that they disagreed with his conclusion.

15. The question asks for the sentence from the passage that best supports the idea that sea wolves had successfully adapted to living on the islands.

- A. **CORRECT.** This sentence from paragraph 3 describes a significant difference in the diets of the mainland and sea wolves: the mainland wolves “almost exclusively eat meat, such as deer and elk, and teach their young to hunt for land animals,” whereas the sea wolves had adapted to the point where they derive “as much as 90 percent of their nutrition from the sea and teach their young to dig for clams and to catch fish.” This sentence emphasizes the dietary difference between the two groups of wolves and best supports the idea that sea wolves had successfully adapted to living on the islands.
 - B. Incorrect. Although this sentence from paragraph 3 describes one technique that the sea wolves used to hunt, it does not offer evidence as strong as that provided by the preceding sentence, which explains that sea wolves were able to derive “as much as 90 percent” (paragraph 3) of their sustenance from the sea alone (versus the mainland wolves, which “almost exclusively eat meat” from land animals [paragraph 3]).
 - C. Incorrect. Although this sentence from paragraph 3 states that “some sea wolves live their entire life on the islands,” it does not provide strong evidence of the necessary adaptations—namely, how these wolves were able to successfully live their whole lives on the islands. Living on the islands was not necessarily an adaptation in and of itself; the adaptation was the sea-based diet that enabled the sea wolves to live on the islands without access to land animals.
 - D. Incorrect. Although this sentence from paragraph 4 presents Darimont’s hypothesis that “a change in habitat led to the eventual genetic differences” between the wolves, the sentence does not describe any of the sea wolves’ adaptations nor best support the idea that the sea wolves successfully adapted to living on the islands.
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16. The question asks how a change in habitat most affected the wolf population of the Great Bear Rainforest over time.

- E. Incorrect. Although the island wolves learned new hunting techniques (“dig for clams and to catch fish,” “sneak up on a seal sunning itself on a rock and make a leaping attack from the water” [paragraph 3]), there is no evidence in the passage that these hunting techniques were developed in response to scarcity of prey. The most significant effect of the change in habitat was not an influence on hunting techniques but the behavior differences that evolved because of the isolation of the groups of wolves from each other.
- F. Incorrect. The change in habitat did not cause the wolves to form smaller packs but rather served to create distinctive behaviors because of the isolation of one pack from another, eventually causing the groups of wolves to become distinct species.
- G. **CORRECT.** The change in habitat caused the wolves to gradually become two distinct species. Though the “sea wolves regularly swim between islands” and “some salmon-eating mainland wolves come and go from the islands,” the “sea wolves are full-time island residents” (paragraph 3). This behavioral adaptation to their environment caused the sea wolves to “became more isolated” from the mainland wolves; as a result, the two groups “rarely mated with each other,” and “over time the two types of wolves became more distinct” (paragraph 4).
- H. Incorrect. Only the sea wolves adapted their diet. They did this not because different food sources became available in the area but because they were in an entirely different area from the mainland wolves.

Excerpt from "How We Made the First Flight"

- 17.** The question asks how paragraph 1 introduces the idea that the Wright brothers knew that their flight attempt was risky.
- A. CORRECT.** Paragraph 1 describes the Wright brothers hanging out "the signal" to notify the lifesaving crew to stand by as they attempted flight; the need for lifesaving experts to be available in case of an accident introduces the idea that the attempted flight might crash.
 - B.** Incorrect. The specifics on the speed of the wind by themselves do not emphasize the danger of the flight. While the brothers admitted that the strong wind posed certain risks, they also noted that the windy conditions might make landing safer ("estimated that the added dangers in flight would be partly compensated for by the slower speed in landing" [paragraph 1]).
 - C.** Incorrect. A slower landing was expected as a result of the windy conditions, but it was not part of a plan to increase the safety of the flight.
 - D.** Incorrect. While the Wright brothers' initial decision to wait to see whether the wind would die down does suggest they were concerned about the safety of the flight, the explanation of their decision to proceed with the flight shows that they expected one benefit from the poor weather: "the slower speed in landing" (paragraph 1).
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- 18.** The question asks how the sentence from paragraph 4 contributes to the development of ideas in the excerpt.
- E.** Incorrect. The sentence from paragraph 4 does not refer to the challenge of the winter conditions during the flight attempt.
 - F.** Incorrect. While the sentence from paragraph 4 specifically references a previous flight several days earlier, it does not state how many attempts came before Wilbur's attempt on December 14.
 - G. CORRECT.** The sentence from paragraph 4 indicates that the Wright brothers had agreed to take turns attempting to achieve the first flight, which suggests their eagerness to each be the first to successfully fly the machine.
 - H.** Incorrect. Orville's trial came about simply because the brothers took turns, which would suggest that there was no greater likelihood of success or reason to be more confident at that moment than there had been for previous attempts.

19. The question asks why the photograph mentioned in paragraph 4 is significant.
- A. Incorrect. According to paragraph 4, the photograph was not taken immediately after the tethering wire was released but rather after an intervening period during which “Wilbur ran at the side of the machine, holding the wing to balance it on the track.” The picture was not taken until “the machine had reached the end of the track,” which occurred after a “forty-foot run” (paragraph 4).
 - B. **CORRECT.** The photograph mentioned in paragraph 4 is significant because it provides proof that the machine did, in fact, take flight: “One of the Life Saving men snapped the camera for us, taking a picture just as the machine had reached the end of the track and had risen to a height of about two feet. The slow forward speed of the machine over the ground is clearly shown in the picture by Wilbur’s attitude. He stayed along beside the machine without any effort.”
 - C. Incorrect. The photograph mentioned in paragraph 4 is described as showing the plane moving forward through the air at a height of two feet, but while the effect of the wind may be visible, it is not why the photo is significant. Instead, the photograph provides proof that the plane is, in fact, moving through the air (“One of the Life Saving men snapped the camera for us, taking a picture just as the machine had reached the end of the track and had risen to a height of about two feet. The slow forward speed of the machine over the ground is clearly shown in the picture by Wilbur’s attitude”).
 - D. Incorrect. Although the plane is shown at a height of two feet in the photograph mentioned in paragraph 4, the picture documents only one moment of the plane’s flight and does not provide proof that the pilot had to gradually increase the height of the plane in the air.
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20. The question asks how the details in paragraph 5 about the uneven nature of the flight convey a central idea of the excerpt.
- E. Incorrect. Paragraph 5 explains that the rudder was unbalanced and the effect that this issue had on the flight, but the rudder was only part of the reason for the short flight. The length of the flight is not a central idea of the excerpt.
 - F. Incorrect. Although paragraph 5 does explain that the equipment contributed to the difficulty of controlling the plane’s flight, the lack of control over the flight is not a central idea of the excerpt, which is the fact that the Wright brothers achieved a successful flight in spite of the challenges involved.
 - G. **CORRECT.** The details in paragraph 5 describe the difficulties that the weather conditions and mechanical issues presented and how Orville’s flight was successful despite the issues. The ability of the Wright brothers to overcome difficult circumstances and complete the first flight is a central idea of the excerpt.
 - H. Incorrect. While paragraph 5 does emphasize the difficulty caused by the wind, it does not describe a “gradual change” in the wind, only that it was “irregular.”

- 21.** The question asks how the sentence from paragraph 5 helps convey Orville Wright's perspective about the first flight.
- A.** Incorrect. Although the sentence from paragraph 5 refers to the velocity of the wind during the flight, there is no indication that Orville felt a sense of frustration with the windy conditions. Instead, the sentence emphasizes the "speed of the machine relative to the air" and presents the equivalent flight length if the machine had flown through calm air ("the length of the flight was equivalent to a flight of 540 feet made in calm air"), details that emphasize the importance of the Wrights' accomplishment.
 - B. CORRECT.** In the sentence from paragraph 5, Orville uses the wind velocity and the machine speed to highlight the distance that the plane covered while in the air and to determine the distance that it would have flown on a day with calm winds, which emphasizes the magnitude of the accomplishment.
 - C.** Incorrect. Since Orville does not suggest in the sentence from paragraph 5 how far the plane traveled under the actual conditions of high winds, the comparison is incomplete. Additionally, this statement does not address the reason that he would make such a comparison, which allowed him to describe the flight in more impressive terms (540 feet versus 120 feet).
 - D.** Incorrect. Unlike the wind velocity calculations made in preparation for the flight, which might help in determining the success of future flights, the comparative calculations that Orville provides in the sentence from paragraph 5 help interpret the results of the first flight (by describing how fast and far the machine flew relative to the flying conditions) and thereby communicate its success. The calculations of the first flight's relative speed and equivalent distance would not affect the success of future flights, but the information does provide context for understanding the Wright brothers' accomplishment.
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- 22.** The question asks how the sentence contributes to paragraph 5.
- E.** Incorrect. The sentence focuses on the "sudden dart" of the plane, which ended the flight. According to the paragraph, this sudden dart was caused by the difficulty of controlling the front rudder "on account of its being balanced too near the center." The sentence does not detail the need for the pilot to have quick reflexes.
 - F. CORRECT.** The sentence presents the idea that the difficulty of operating the machine brought the flight to a quicker end than it might otherwise have had. According to paragraph 5, "control of the front rudder was difficult on account of its being balanced too near the center. This gave it a tendency to turn itself when started." These sentences show that one such "dart" shortened the flight.
 - G.** Incorrect. Although it describes the abrupt end of the flight, the sentence does not describe the shift in wind speed. The word "dart" refers instead to a change in the height, or altitude, of the machine.
 - H.** Incorrect. Although it includes the detail that the flight ended "a little over 120 feet from the point at which it rose into the air," the sentence does not provide an overview of the entire flight's progression. The sentence from paragraph 5 omits the flight's takeoff and only describes its rather abrupt ending.

- 23.** The question asks what idea is most clearly conveyed by the words “only,” “nevertheless,” and “finally” in the sentence from paragraph 5.
- A.** Incorrect. Although the duration of the flight was short and a successful flight had taken a long time to achieve, the words in the sentence from paragraph 5 are used to emphasize the remarkable nature of the flight, not the length of time it had taken the Wright brothers to be successful.
 - B.** Incorrect. While it is easy to imagine that the Wright brothers had hope for longer flights, the words in the sentence from paragraph 5 do not relate directly to this sentiment; instead, they describe the groundbreaking success of their flight.
 - C.** Incorrect. While the capabilities of the aircraft were demonstrated during the flight, the words in the sentence from paragraph 5 apply not only to the machine but also to the efforts of the people who designed it, built it, and actually made it fly.
 - D. CORRECT.** The words in the sentence from paragraph 5 suggest that, though the first flight may not have lasted very long or taken the pilot very far, the Wright brothers accomplished something no one had been able to do before: successfully pilot an airplane in flight.
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- 24.** The question asks which sentence from the excerpt best supports the idea that the Wright brothers had to adapt their plans for the flight in order to accommodate weather conditions.
- E.** Incorrect. Although the sentence from paragraph 1 mentions the rainy weather and frozen puddles, it does not specifically explain how these weather conditions forced the brothers to adapt their plans for the flight.
 - F. CORRECT.** The sentence from paragraph 1 reveals that the Wright brothers adapted by making a risk calculation, based on the wind speed, before the flight. The high speed of the wind could cause difficulties in flight while simultaneously allowing for a slower, more controlled landing.
 - G.** Incorrect. The sentence from paragraph 4 does mention wind, but it describes what Orville was doing during the attempted flight, not the factors he considered before the flight in order to adapt the plan.
 - H.** Incorrect. Although the sentence from paragraph 5 mentions the “irregularity of the air” during the flight, the sentence does not describe how the brothers adapted their plans for the flight based on the weather.

25. The question asks how the use of chronological structure contributes to the development of ideas in the excerpt.

- A. **CORRECT.** Through the chronological structure, Orville addresses all stages of the flight in a way that builds from flight concerns and preparations for takeoff to his experiences during the flight and his successful landing.
- B. Incorrect. While obstacles are presented within the excerpt, the chronological structure emphasizes the events that ended in the successful achievement of flight on that day rather than how the Wright brothers overcame obstacles.
- C. Incorrect. The chronological structure of the excerpt does not show that the Wright brothers applied lessons learned from their previous attempts at flight; instead, the structure describes Orville's December 17 attempt.
- D. Incorrect. While Orville's narrative certainly shows a strong need to analyze wind speed, this idea is not conveyed through the chronological structure of the excerpt. Additionally, the description of the first flight on December 17 indicates that it did not take place in ideal conditions ("We realized the difficulties of flying in so high a wind" [paragraph 1] and "The course of the flight up and down was exceedingly erratic, partly due to the irregularity of the air" [paragraph 5]).

Excerpt from "The Spirit of the Herd"

- 26.** The question asks which sentence from the excerpt best explains why Wade reserved Peroxide Jim for "emergency work" (paragraph 1).
- E.** Incorrect. While the sentence from paragraph 1 refers to Peroxide Jim as being a superior horse, it does not tell why he would be useful in an emergency. The mention of Peroxide Jim's superiority does not describe the attributes that would make him an appealing choice for use in an emergency.
 - F.** Incorrect. The sentence from paragraph 10 does not describe the actions of Peroxide Jim. The sentence describes what Wade and the horse were experiencing, but it does not include any reference to how Peroxide Jim was responding to the situation.
 - G.** Incorrect. The sentence from paragraph 11 describes Wade's experiences and does not focus on the actions of Peroxide Jim. It reveals Wade's awareness of the danger he was in, but the only reference to Peroxide Jim in this sentence is the description of the horse having to work harder to run on the stonier ground as they neared the edge: from "the plunging of the horse," Wade knew "that the ground was growing stonier, that they were nearing the rocks." This quotation does not show that Peroxide Jim was the right horse to use for emergency work because it does not indicate, at this point in the text, that he was responding in a way that saved the herd or Wade.
 - H. CORRECT.** The sentence from paragraph 16 describes Peroxide Jim's high level of skill and ability to perform in a life-and-death situation. Not only did Peroxide Jim recognize the emergency immediately ("From the flash of the lightning the horse had taken the bit"), but the horse also proved to have the physical capability ("had covered an indescribably perilous path at top speed, had outrun the herd and turned it from the edge of the rim rock") and the mental toughness ("without a false step or a tremor of fear") required to respond appropriately to the dangerous situation.

27. The question asks how paragraphs 1–2 contribute to the development of the central idea of the excerpt.

- A. CORRECT.** The description of Peroxide Jim in paragraph 1 indicates that the horse was a fine animal (“Along with the wagon had come the fresh horses—one of them being Peroxide Jim, a supple, powerful, clean-limbed buckskin, a horse, I think, that had as fine and intelligent an animal-face as any creature I ever saw” [paragraph 1]). The statement in paragraph 2 that Wade’s “faith in Peroxide Jim was complete” supports the central idea of the excerpt that Wade believed in Peroxide Jim’s abilities even before the horse turned the herd and saved the cattle.
- B.** Incorrect. Paragraphs 1–2 do not emphasize Wade’s high expectations for himself, nor are these expectations a central idea of the excerpt. The narrator expresses a high opinion of Wade’s abilities in his comparison of Peroxide Jim and Wade, referring to the horse as a “complement” (paragraph 1) for Wade; however, Wade showed complete trust in the horse’s ability to save the herd without his help, as evidenced by Wade dropping the reins to allow the horse to control the situation (paragraph 12).
- C.** Incorrect. The paragraphs refer to Peroxide Jim’s ability to handle cattle; in fact, paragraph 2 says that “the horse knew the cattle business.” It can be inferred that Wade had this knowledge as well, but this idea is not the focus of paragraphs 1–2 and is not the central idea of the excerpt.
- D.** Incorrect. Wade’s ability to judge a horse’s competence is not a central idea of the excerpt. The event described in the text is proof that Wade knew how to judge a horse’s ability: Wade trusted Peroxide Jim, and Peroxide Jim did not let him down. The option puts the focus on Wade and one of his strengths, when the central idea and focus of the excerpt is Peroxide Jim’s abilities and strengths, not Wade’s.

- 28.** The question asks how paragraph 3 conveys the effect of the setting on the cattle drive.
- E.** Incorrect. The riders were not trying to move the herd through the darkness. Instead, the reference to the growing darkness (“overtaken by the dusk”) indicates that the riders had halted the animals for the night because moving the herd across the desert in the darkness would have been much too dangerous because of the sheer drop-off at the edge of the tableland. The riders needed the daylight to navigate the herd safely through the “pass descending to the next lower bench.”
 - F. CORRECT.** Paragraph 3 describes the land where the herd was as being “as level as a floor” but “rimmed by sheer rock, from which there was a drop to the bench of sage below.” The drop was “a perpendicular fall of about three hundred feet”—any animal or person could fall over that edge. It was the change in height, from flat tableland to sheer drop-off, that made the terrain so dangerous.
 - G.** Incorrect. The use of the word “desert” in the first sentence of the paragraph does not highlight the isolation of the setting or indicate that the riders and the herd were uncomfortable being alone. Instead, the word merely establishes the setting where the action occurred: “it lay as level as a floor, rimmed by sheer rock, from which there was a drop to the bench of sage below.”
 - H.** Incorrect. The excerpt does not indicate that the steep terrain made it difficult for the herd to move forward. The herd was not expected to navigate the steep terrain. Instead, the steep terrain presented a danger to the herd that must be avoided. The riders intended to move the herd safely through passes that descended gradually to lower elevations.

- 29.** The question asks how paragraph 9 fits into the overall structure of the excerpt.
- A.** Incorrect. Wade was alert long before the events of paragraph 9. In paragraph 4, he began singing to the cattle because he knew that they were on the verge of stampeding. He was even more alert when he “caught a breath of fresh, moist wind with the taste of water in it” (paragraph 6) and heard thunder in paragraph 8: “The sound seemed to come out of the earth, a low, rumbling mumble.”
 - B.** Incorrect. Wade and the other riders were not calm; rather, they were alert and attempting to keep the cattle calm by singing to them. They were as prepared as they could be for what was about to happen, as shown in paragraph 1, through the selection of fresh horses and, specifically, Wade’s choice to ride Peroxide Jim in the face of possible danger: “Wade had been saving this horse for emergency work.”
 - C.** Incorrect. Although Wade’s leadership is implied in paragraph 9 (“He must keep them going. He touched his horse to ride on with them”), his leadership is revealed in earlier portions of the excerpt as well (“Wade had been saving this horse” [paragraph 1]; “Wade began to sing” [paragraph 5]), so this is not new information being introduced in paragraph 9 of the excerpt.
 - D. CORRECT.** Paragraph 9 describes the lightning strike that made the cattle panic and stampede. The stampede is the main conflict Wade and Peroxide Jim addressed in the excerpt; and therefore, paragraph 9 fits into the overall structure of the excerpt by presenting the incident that caused the main conflict.
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- 30.** The question asks what the phrase “bore down the flank of the herd” (paragraph 13) conveys about Wade.
- E.** Incorrect. While Wade struggled to see the front of the herd, the words “bore down the flank of the herd” (paragraph 13) are meant to convey the intensity of the situation Wade was in, not the way the herd is blocking his vision.
 - F.** Incorrect. The sentence from paragraph 13 states that the herd was “close on their left” and includes the phrase “bore down.” Both of these phrases indicate that Wade was trapped between the stampeding herd and the steep cliff. Wade and Peroxide Jim were struggling to reach the very front of the herd to turn it away from the edge.
 - G. CORRECT.** The phrase “bore down the flank of the herd” from paragraph 13 conveys the overwhelming strength of the herd. The herd was forcing Wade toward the cliff. The wording in the quotation emphasizes the immediate danger of the situation and conveys the idea that Wade and Peroxide Jim were almost forced over the edge of the precipice by the stampeding herd.
 - H.** Incorrect. The phrase “bore down the flank of the herd” (paragraph 13) does not indicate anything about the fear felt by the herd. The phrase is about Wade’s position between the edge of the stampeding herd and the drop-off. Wade was aware of the danger the herd was in if he and Peroxide Jim could not turn the cattle from the edge.

- 31.** The question asks how the sentences from paragraph 11 and paragraph 16 develop a central idea in the excerpt.
- A.** Incorrect. While Peroxide Jim's presence was critical to saving the herd, the details in paragraph 11 and paragraph 16 do not focus on this idea. The primary idea is that the horse was so intelligent and aware that he acted on his own.
 - B.** Incorrect. The excerpt does not tell who trained Peroxide Jim. It can be inferred that Peroxide Jim had been well trained and was knowledgeable of working cattle; however, there is no indication that Wade was the person who trained Peroxide Jim, only that Wade knew of Peroxide Jim's abilities, respected the skilled horse, and was "saving this horse for emergency work" (paragraph 1). Because the reader cannot infer from the excerpt that Wade was the trainer, this idea cannot be considered central to the excerpt.
 - C. CORRECT.** Wade recognized that Peroxide Jim knew to turn the herd without any instruction from him. Throughout the excerpt, Wade exhibited confidence in his horse, Peroxide Jim. For example, the narrator says that Wade's "faith in Peroxide Jim was complete" in paragraph 2. After Wade let go of the reins (paragraph 12), the horse took over, doing exactly what needed to be done to save Wade, the herd, and himself: "a big white steer, which the horse, with marvelous instinct, seemed to pick out from a bunch, and to cling to, forcing him gradually ahead, till, cutting him free from the bunch entirely, he bore him off into the swishing sage" (paragraph 14).
 - D.** Incorrect. The sentence from paragraph 11 and the sentence from paragraph 16 show that Peroxide Jim acted skillfully and with the knowledge that the ride was dangerous ("Wade was riding for his life. He knew it. His horse knew it" [paragraph 11]). There is no indication that Peroxide Jim was not afraid; in fact, it is likely the awareness of the danger and the fear associated with that knowledge contributed to the horse's motivation to turn the herd.

32. The question asks how the details in paragraphs 14–16 help convey a central idea of the excerpt.

- E. **CORRECT.** Paragraphs 14–16 describe how Peroxide Jim’s “marvelous instinct” headed off the herd and drove it away from the cliff. Wade acknowledged that without his instruction, Peroxide Jim knew to find the leader of the herd, cut him off from the rest of the herd, and then lead him to safety, confident that the remainder of the herd would follow. Paragraph 16 confirms this: “Whose race was it? It was Peroxide Jim’s, according to Wade, for not by word or by touch of hand or knee had the horse been directed in the run.” This reinforces a central idea of the excerpt regarding the horse’s amazing intellect and ability.
 - F. Incorrect. Although paragraphs 14–16 mention the “rim,” the “cliffs,” and the “indescribably perilous path,” these details are not the focus of the paragraphs. They are descriptions of the setting where Peroxide Jim’s able and effective actions saved the stampeding herd, and it is these actions that are the central idea being conveyed.
 - G. Incorrect. Although Peroxide Jim is called “powerful” in paragraph 1, his physical strength is neither a central idea of the excerpt nor the focus of paragraphs 14–16. His success at turning the herd was attributed to his intellect and instinct, not his physical strength.
 - H. Incorrect. The excerpt does not suggest that Peroxide Jim anticipated the herd’s stampede before the men did. In fact, the excerpt indicates that Wade led the men in singing to cover sudden noises that might cause the herd to stampede, indicating that Wade was alert to that possibility. Paragraph 7 also indicates that Wade anticipated the stampede, as he “checked his horse instantly” and “tightened [his] grip on the reins” as soon as he smelled the rain and heard the low rumble of thunder that preceded the lightning strike. The narrator notes Wade’s actions well before the horse’s actions. Paragraphs 14–16 describe how Peroxide Jim acted after the stampede began.
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33. The question asks which sentence from the excerpt best reveals the mood on the drive before the lightning struck.

- A. Incorrect. The sentence from paragraph 3 describes the setting but does not contain words that create a strong mood. In fact, this sentence shows that while there were dangerous surroundings, the riders and the herd were “now halted.”
- B. **CORRECT.** The sentence from paragraph 5 describes the riders singing “to preempt the dreaded silence, to relieve the tension” and to prevent “shock” from any sudden noise. These words provide a strong sense of the tense, heavy mood in which a terrible event such as a stampede could quickly happen.
- C. Incorrect. In the sentence from paragraph 7, Wade has become aware of a change in the weather (“caught a breath of fresh, moist wind with the taste of water” [paragraph 6]) and is seeking to verify it. Even though a rainstorm was one concern the riders had, the words describing Wade’s immediate reaction to his discovery do not best convey the mood of dread and foreboding that the men and horses feel just before the lightning strike.
- D. Incorrect. While the words “ghostly” and “still moving in a circle” in the sentence from paragraph 9 create a strange and mysterious image, the mood before the lightning struck was not one of mystery or suspense. Instead, these descriptive words are used to indicate Wade’s faint ability to see the herd moving in the dark.

A Miracle Mile

- 34.** The question asks how the words “feat,” “humanly impossible,” and “impenetrable barrier” in paragraph 1 affect the tone of the paragraph.
- E.** Incorrect. Although paragraph 1 states that “several elite runners aimed to break that supposedly impenetrable barrier,” the words “feat,” “humanly impossible,” and “impenetrable barrier” suggest that the goal was unattainable even for the most skilled runners.
 - F. CORRECT.** No one had ever been able to run a mile in less than four minutes, and the words “feat,” “humanly impossible,” and “impenetrable barrier” imply that the goal seemed unattainable. These words also reinforce the comparison of running a four-minute mile to “scaling Mount Everest” (paragraph 1).
 - G.** Incorrect. The words “feat,” “humanly impossible,” and “impenetrable barrier” describe how challenging and almost impossible running a four-minute mile seemed, and while other elite runners “aimed to break that supposedly impenetrable barrier” (paragraph 1), the paragraph focuses on Roger Bannister, not the competition among elite runners seeking to break the record.
 - H.** Incorrect. Bannister’s training program is described in paragraphs 3 and 4, and the words “feat,” “humanly impossible,” and “impenetrable barrier” are used in paragraph 1 to describe the magnitude of Bannister’s goal to run a four-minute mile. Though his training program was intense, these words relate to the intensity of the goal itself, not to the intensity of his training.
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- 35.** The question asks which sentence best supports the idea that Bannister needed an alternative to “logical planning” (paragraph 3) in order to accomplish his goal.
- A.** Incorrect. The outcome of the 1952 Olympics, referenced in the sentence from paragraph 2, is what prompted Bannister to seek a new goal: “Determined to redeem himself, Bannister . . . focused on the ultimate prize—breaking the four-minute-mile barrier” (paragraph 2).
 - B.** Incorrect. The sentence from paragraph 3 does not show an alternative to Bannister’s training plan to “develop endurance and speed” (paragraph 3) and his focus on using logical planning in order to accomplish his goal.
 - C.** Incorrect. The sentence from paragraph 4 focuses on details of his training plan, explaining the “intensive interval training” (paragraph 3) that Bannister used to build his endurance and speed, not an alternative form of preparation.
 - D. CORRECT.** The sentence from paragraph 4 explains that Bannister reached a point where he could not improve his time despite the strict training plan he had created. Taking a break from his training to spend time mountain climbing “permitted his muscles to recuperate and left him feeling refreshed” (paragraph 4).

36. The question asks how the sentences from paragraph 7 contribute to the development of ideas in the passage.

- E. CORRECT.** The sentences from paragraph 7 show that toward the end of the race, Bannister knew that the goal of breaking the four-minute-mile barrier was within his grasp and that he had the focus necessary to achieve it. The sentence following Bannister's quotation states that he did indeed meet his goal, crossing "the finish line in 3 minutes 59.4 seconds" (paragraph 7).
 - F.** Incorrect. The feelings Bannister expressed in the sentences from paragraph 7 did not erase those feelings related to his loss at the 1952 Olympics, which were what drove him to the achievement he was about to make.
 - G.** Incorrect. While the quotation states that Bannister felt "unity," this pertains to his running, not to his work with the team. The sentences from paragraph 7 capture Bannister's focus on his chance to break the barrier and what he was feeling at that moment.
 - H.** Incorrect. The sentences from paragraph 7 express Bannister's realization that he was on the verge of reaching a goal. The sentences show that in the seconds before crossing the finish line, Bannister was fully focused on the end goal and was not thinking about his training or his running technique.
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37. The question asks what idea is conveyed by the phrase "a new mindset had taken root" in paragraph 8.

- A. CORRECT.** After Bannister ran the mile in under four minutes, it became clear to other runners that this goal was within the realm of human ability, and "soon after Bannister's achievement, four other athletes matched his performance" (paragraph 8).
- B.** Incorrect. While the passage states that runners broke the four-minute-mile barrier after Bannister initially broke it ("Soon after Bannister's achievement, four other athletes matched his performance" [paragraph 8]), running a four-minute mile is still impressive and a challenge for elite runners.
- C.** Incorrect. Although runners most likely knew that the training needed in order to break the four-minute-mile barrier was difficult and intensive, the phrase "a new mindset had taken root" focuses on their belief in the possibility of breaking the four-minute-mile barrier, which had been viewed as a "supposedly impenetrable barrier" (paragraph 1), not the idea that the training was difficult.
- D.** Incorrect. Even though "four other athletes matched his performance" and "the record continued to fall" (paragraph 8), the phrase "a new mindset had taken root" does not refer to the idea that there was an increase in the number of runners entering races just to try breaking the four-minute-mile barrier.

- 38.** The question asks which sentence indicates that Bannister nearly made a mistake that would have cost him the world record.
- E.** Incorrect. The sentence from paragraph 4 describes a challenge Bannister faced during his training period, when he used “intensive interval training to develop endurance and speed” (paragraph 3). Bannister ran laps on a “quarter-mile track” (paragraph 3) and was able to control his pace at this time—unlike during the actual race to break the record.
 - F.** Incorrect. The sentence from paragraph 6 describes the start of the race and Brasher’s role as “first rabbit” for Bannister. Bannister was behind Brasher, following their plan for breaking the record.
 - G. CORRECT.** If Bannister had begun running faster than the “steady but grueling pace” (paragraph 7) set by his “rabbit,” he would likely not have had enough energy to finish the race. As paragraph 6 notes, “the runner conserves about 15 percent of his or her effort” by allowing the rabbit to set the pace. Bannister had “lost his instinctive feel for his pace” (paragraph 7) in the excitement of the race. If he had given in to his impulse to run faster and bypassed the rabbit at that point in the race, it would have cost him energy, and, in turn, the record.
 - H.** Incorrect. The sentence from paragraph 7 describes how Bannister leaped ahead of Chataway, his second “rabbit,” at the appropriate time in the effort to break the record. Chataway had “surged forward, leading Bannister at this same punishing rate for another lap and a half” (paragraph 7) before Bannister moved past him.
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- 39.** The question asks how Bannister’s loss in the 1952 Olympics influenced his decision to pursue breaking the four-minute-mile barrier.
- A.** Incorrect. While Bannister recognized the weaknesses that led to his poor performance in the Olympics and worked “to develop endurance and speed” (paragraph 3), the loss made him “determined to redeem himself” (paragraph 2). The desire for redemption influenced Bannister to focus specifically on running a mile in under four minutes, rather than on winning other races or training for other distances.
 - B.** Incorrect. Although Bannister developed an “intensive interval training” plan to improve his “endurance and speed” (paragraph 3), he applied a different approach only after his progress toward a four-minute mile reached a “plateau” (paragraph 4) in 1954. It was his desire to “shave off at least one more second in order to reach his target” (paragraph 4) that prompted him to take a break from interval training and go mountain climbing for three days.
 - C. CORRECT.** Bannister sought to redeem himself after “he finished in a dismal fourth place” at the Olympics (paragraph 2). He thought that his performance “was a disappointment for him and his country, Great Britain,” and he responded by setting a goal to successfully conquer the four-minute mile, which was considered the “ultimate prize” (paragraph 2).
 - D.** Incorrect. Bannister’s loss at the 1952 Olympics motivated him to change his training focus to reaching the “ultimate prize” (paragraph 2) of breaking the four-minute-mile barrier, which no other runner had accomplished. His loss at the Olympics did not present him with a specific opportunity to reach this goal.

- 40.** The question asks how interval training affected Bannister’s performance.
- E.** Incorrect. The moderation of his pace was achieved through the use of “rabbits,” described in paragraph 6, more than through his method of interval training.
 - F.** Incorrect. Bannister worked individually during the interval training period and then paced himself with a two-person team of “rabbits,” which were introduced in paragraph 5 and explained in paragraph 6. It was the use of “rabbits” during the race that helped him conserve some of his effort, not the interval training.
 - G. CORRECT.** As paragraph 3 states, the goal of Bannister’s training program was to “develop endurance and speed,” which are synonyms of the words “stamina” and “pace.”
 - H.** Incorrect. Although Bannister “let his body recover for two minutes” (paragraph 3) during interval training, this was not the primary effect of the training on Bannister’s performance. Instead, interval training allowed him to develop greater endurance and speed.
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- 41.** The question asks how the author’s use of chronological structure contributes to the development of ideas in the passage.
- A.** Incorrect. While paragraph 4 mentions the “plateau” Bannister dealt with and the break that “permitted his muscles to recuperate,” the chronological structure of the passage focuses mainly on the progression of Bannister’s process over time.
 - B.** Incorrect. Even though the passage suggests that Bannister’s ability to break the four-minute-mile barrier improved and that he felt “prepared to attempt to break the world record” (paragraph 4), the chronological structure of the passage primarily serves to show how Bannister’s progress over time led to his success.
 - C.** Incorrect. The chronological structure of the passage begins with an acknowledgment that Bannister was inspired to break the four-minute-mile barrier by his loss at the 1952 Olympics (paragraph 2); however, the overall organization of the passage highlights his dedicated efforts over time to break the four-minute-mile barrier.
 - D. CORRECT.** The chronological structure of the passage follows the progression of Bannister’s training from his loss at the 1952 Olympics to the race where he ran the first sub-four-minute mile on May 6, 1954 (paragraph 5).

Serpent Mound

42. The question asks how the poem's form contributes to the poem's meaning.
- E. **CORRECT.** The poem is structured as one long stanza. The line lengths throughout the poem and the line indents (such as those in lines 7–10) create a visual effect so that the poem itself mimics the shape of the Serpent Mound.
 - F. Incorrect. The uneven line lengths in the poem do not indicate the different interpretations of the mound; separate stanzas or other stopping points would more effectively point to contrasting ideas.
 - G. Incorrect. The dashes in the poem lead to further explanation of a thought, not a change of thought.
 - H. Incorrect. The lack of regular rhyme and meter is intended to create a conversational tone rather than show the speaker's struggle to grasp how large the mound is.
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43. The question asks which lines reveal how the setting affects the speaker and the men from the museum.
- A. Incorrect. The words "being winter" (line 8) work to establish the setting, but lines 8 and 9 do not describe the effect the winter setting has on the speaker and the men.
 - B. **CORRECT.** The imagery in lines 14 and 15 describes how the winter silence makes the speaker and the men feel emotional heaviness: it "pressed / down on all of us like a weight."
 - C. Incorrect. Although the words "the humps in the ground were all but / invisible" describe how the setting appears to the speaker and the men, lines 16 and 17 do not describe how the setting affects them.
 - D. Incorrect. Although lines 21 and 22 do describe the setting, the lines do not describe how the setting affects the speaker and the men. The lines describe the setting in the summer, which is before the men from the museum show up.

44. The question asks how lines 1–2 contribute to the development of ideas in the poem.
- E. Incorrect. The idea that the men are too busy with their work to talk to the speaker is not conveyed in the poem, and, in fact, one of the museum men discusses the oval mound with the speaker (“as if swallowing the sun, one of the museum / men suggested” [lines 32–33]).
 - F. **CORRECT.** The lines, with their mention of measuring tapes and sketchbooks, indicate that the reasons the museum men came were to measure the mound and to draw sketches of it.
 - G. Incorrect. There is little indication in the poem that the museum men have a hidden motive for studying the mound. Lines 1–2 present a straightforward description of the men and their equipment, which emphasizes the men’s academic interest in studying the mound.
 - H. Incorrect. While the speaker displays some curiosity about the work the museum men are doing (“one of the museum / men suggested, taking notes with his quill pen, / an old-style inkhorn slung at his side. / I liked that” [lines 32–35]), lines 1–2 focus on introducing the idea that the mound is a formation that is worth formal study and examination by experts.
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45. The question asks how line 28 contributes to the development of ideas in the poem.
- A. Incorrect. Although the museum men are documenting the shape of the mound in line 33, lines 29–32 and 35–41 focus on what the oval mound represents as interpreted by the museum men, the speaker, and the speaker’s sister.
 - B. Incorrect. While the lines preceding line 28 describe the body of the snake in detail (“you could climb / a tree and get some idea of the whole thing: / the serpent’s body undulating, slithering / silently across the ancient / earth” [lines 24–28]), the purpose of line 28 is to begin the development of the ideas about the oval shape at the end of the mound: the serpent’s mouth.
 - C. **CORRECT.** Line 28 introduces the presence of the oval mound at the mouth of the snake. The meaning of this oval is of great interest to the museum men and the speaker. Line 28 leads to the idea that there is speculation about the oval mound (“as if the snake were about to swallow an egg” [line 29], “as if swallowing the sun” [line 32], and “It is singing to the sun” [line 38]).
 - D. Incorrect. The speaker does not say that the oval shape near the end of the mound is difficult to see. Earlier, the speaker says that the ridges of earth are difficult to see unless you are near them, but the speaker does not say this about the oval shape.

46. The question asks what impact the phrases “all but / invisible” and “even less obvious” in lines 16–18 have on the meaning of the poem.
- E. **CORRECT.** The words “all but / invisible” indicate that a person must be close to see the humps in the ground, while the phrase “even less obvious” indicates that a person must be far away to see the overall snake shape of the mound.
 - F. Incorrect. While the speaker has to lead the museum men to the mound because they did not know the exact location, the words in lines 16–18 are related to the difficulty in viewing the mound from the immediate surrounding area.
 - G. Incorrect. The speaker is willing to take the museum men out to study the mound, so there is no indication in the poem that the speaker wants the location of the mound to remain a secret. The words in lines 16–18 convey the idea that the mound is difficult to see.
 - H. Incorrect. While the speaker contemplates the significance of certain elements of the mound, the phrases in lines 16–18 relate to a viewer’s ability to see the physical shape of the mound, not its deeper meaning.
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47. The question asks what impact the words “swish,” “chitter,” and “cry” in lines 12–13 have in the poem.
- A. **CORRECT.** The words highlight the sounds of the animals that visit the mound in the summer: the “swish of a beaver’s heavy tail” (line 12), the “chitter of a chickadee” (line 13), and the “cry of a hawk” (line 13). These words help contrast the quiet stillness of the setting around the mound in the winter.
 - B. Incorrect. While the words in lines 12–13 convey the sounds certain animals make in the summer, the sounds of the animals that live near the mound are a natural part of life in the area, not a disruption.
 - C. Incorrect. The speaker is contrasting the sounds of the animals around the mound during the rest of the year with the silence of the winter months, not merely indicating the variety of wildlife.
 - D. Incorrect. The speaker expresses the idea that the mound is more visible in the winter because of the lack of brush (“It being winter, / there was little underbrush to speak of” [lines 8–9]). Then lines 12–13 describe sounds, not the appearance of the mound in winter.

- 48.** The question asks how the interaction between the speaker and Ruth in lines 37–41 conveys a central idea of the poem.
- E.** Incorrect. While there are many different interpretations of the mound’s meaning, there is no way to determine which of the interpretations is most accurate, and there is no way to know the mound’s true purpose.
 - F. CORRECT.** The interaction references Ruth’s interpretation of the open-mouth shape as a serpent singing to the sun. This interpretation creates a joyful mood. The speaker contrasts this perspective with the idea that the mound is swallowing the sun, which creates a more aggressive feeling. These various interpretations of a physical shape arise out of what the individuals feel when they look at the mound.
 - G.** Incorrect. The speaker does not describe any benefit to considering what different people imagine when they see the mound. Instead, the speaker is simply describing different interpretations.
 - H.** Incorrect. Ruth’s interpretation of the mound’s shape is fanciful and symbolic. It is unlikely that scientific study would change the minds of people such as Ruth about the meaning of the mound.
-
- 49.** The question asks how the poet uses dialogue to contrast the points of view of the speaker and Ruth regarding the mound.
- A.** Incorrect. The interpretation Ruth offers of the mound as a snake singing is abstract, but Ruth does not seem concerned that it is an overly metaphorical or figurative interpretation. The dialogue serves to highlight that Ruth is firm in her belief.
 - B.** Incorrect. There is no indication that the museum men are considering Ruth’s interpretation of the mound or that Ruth wants them to share her interpretation. Ruth’s interpretation is meant to convey an abstract idea, while the museum men would be looking for a firm academic explanation of the mound. Ruth is persistent in her belief, and the dialogue does not suggest that she is concerned with the museum men’s interpretation or findings.
 - C.** Incorrect. Ruth merely states her interpretation and says that she thinks she hears the Serpent Mound singing sometimes. She does not seek to make the speaker agree with her.
 - D. CORRECT.** Beginning in line 37, after the speaker suggests the mound is swallowing the sun, Ruth disagrees. The poet uses the word “insisted” in line 39 to show that Ruth firmly believes in her own interpretation of the mound.

A Memory Revolution

- 50.** The question asks how the details in paragraph 3 about cognitive offloading convey a central idea of the passage.
- E.** Incorrect. Although paragraph 3 describes the Internet as “a vast extended memory,” it does not discuss reliance on the Internet for information. The paragraph states that the Internet “allows people to digitally access and retrieve much larger volumes of information” and indicates that this benefit leaves people free to focus on “connecting data, learning new information, or solving problems.” However, these details about the benefits of the Internet do not express an opinion about the inevitability of Internet reliance.
 - F. CORRECT.** A central idea of the passage is that the Internet is changing how people retain information. Paragraph 3 supports this idea by stating that “a similar process has been taking place for centuries” and that “in the past,” resources such as encyclopedias were used to store and find information. The details provided in paragraph 3 about encyclopedias and the Internet show that people have always used resources to remember information and that these resources change over time as people develop new ways to “assist their memories.”
 - G.** Incorrect. While paragraph 3 does compare the use of encyclopedias to obtain information in the past with the use of today’s Internet, this comparison fails to convey the central idea of the passage that the Internet is changing how people remember information.
 - H.** Incorrect. Although paragraph 3 states that “much larger volumes of information” are available on the Internet than what has been available in previous methods of information storage, such as encyclopedias, this fact does not relate to an increase in the ability to understand that information and is not a central idea of the passage.

- 51.** The question asks how the details of the experiment described in paragraph 5 convey a central idea of the passage.
- A.** Incorrect. Although paragraph 5 states that participants read the trivia facts and then “typed the statements into a computer file,” it does not explain the impact of repetition on memory, nor does this convey a central idea of the passage.
 - B.** Incorrect. Paragraph 5 acknowledges that people evaluate which information is important enough to remember, but it does not describe the rate at which people forget unimportant information. According to the paragraph, information is considered less important to remember if a person believes that he or she will be able to retrieve that information easily in the future. This does not mean the information is unimportant but rather that it is readily available for future access.
 - C.** Incorrect. Paragraph 5 specifies the number of trivia facts that study participants were given to read (forty), but it does not describe the amount of information as a factor in the participants’ memory performance. According to the paragraph, it was not the amount of information but rather the expectation of future availability that affected how much information participants were able to recall.
 - D. CORRECT.** A central idea of the passage is that the way the human memory stores information is changing because of the Internet. The details of the experiment support this idea by indicating that study participants remembered different amounts of information based on whether they “thought the information would be saved” (paragraph 5). Those who “believed the information would be erased and no longer available” (paragraph 5) remembered 40 percent more than those who expected to be able to access the information again in a saved computer file. Therefore, paragraph 5 conveys the central idea that the expectation of future access to information is a key element in “how people evaluate which information deserves their effort to remember.”

52. The question asks how the sentence from paragraph 7 contributes to the structure and development of ideas in the passage.
- E. Incorrect. Although the studies showed, in part, that reliance on the Internet is increasing (“participants recalled the information’s location more often than the content itself” [paragraph 6]), the studies were not conducted in order to determine the risks of Internet use. The claim in the sentence did not prompt the research described in paragraphs 2 and 6.
 - F. Incorrect. While the sentence in paragraph 7 poses a question about the disadvantages of relying on the Internet, paragraphs 2 and 6 present the study data on Internet use and memory in a neutral tone (“correctly identifying 49 percent of the folders for specific facts while remembering only 23 percent of the actual trivia” [paragraph 6]). Neither study describes the availability of information on the Internet as an advantage or a disadvantage.
 - G. **CORRECT.** Paragraphs 2 and 6 describe the results of experiments related to the Internet’s effect on memory without commenting on the advantages or disadvantages of relying on that technology, and the sentence in paragraph 7 presents a questioning viewpoint that moves away from the neutral perspective of the broader passage. The opinion in the sentence is directly argued against in the three sentences that follow it, which present an extended quote from Steven Pinker, a psychology professor at Harvard University. Pinker refutes the idea expressed by the sentence, stating that “knowledge is increasing exponentially; human brainpower and waking hours are not.” He adds that technologies such as the Internet “are the only things that will keep us smart.”
 - H. Incorrect. Although the sentence in paragraph 7 expresses caution about the possible effects of the Internet on memory, the passage does not shift from an optimistic tone to a cautious tone. Actually, paragraph 6 provides the data on Internet use and memory in a neutral tone. The argument expressed by the sentence is also not elaborated on in the sentences that follow, but is immediately argued against by Steven Pinker, a professor of psychology. The last sentence of paragraph 7 in fact refutes the cullled sentence: “ ‘Far from making us stupid, these technologies are the only things that will keep us smart.’ ”

- 53.** The question asks how the study described in paragraph 6 influenced researchers' ideas about memory in the digital age.
- A.** Incorrect. The study required participants to organize information into folders, but the results suggest that organizing the information did not make the information easier to remember; instead, participants remembered the folder in which to find the information but forgot the information itself.
 - B.** Incorrect. Although the participants in the study were given a keyword, such as "ostrich," when asked to remember "which folder contained a particular fact," the study was significant for researchers because it demonstrated that "our memory is adapting to the Internet age by prioritizing where to locate information even when the specific details are forgotten" (paragraph 6). The study confirmed that participants were remembering where the information was stored, because they were able to provide the name of the folder (keyword) where the information was stored.
 - C. CORRECT.** The study in paragraph 6 demonstrated that participants were better able to recall where to find certain information than to recall the information itself. This influenced researchers' ideas about memory in the digital age: "Overall, participants recalled the information's location more often than the content itself, correctly identifying 49 percent of the folders for specific facts while remembering only 23 percent of the actual trivia" (paragraph 6).
 - D.** Incorrect. The study did not examine the relative importance of remembering basic information or storing detailed information. It examined the effect of the Internet on the information that people remember and concluded that human memory "is adapting to the Internet age by prioritizing where to locate information" (paragraph 6).
-

- 54.** The question asks how the diagram provides additional support for the topic presented in the passage.
- E.** Incorrect. While the diagram indicates that the human brain has the ability to maintain different types of memory, the diagram does not show the need for the brain to adapt to obtaining information from the Internet rather than from other sources.
 - F.** Incorrect. The diagram enhances the reader's understanding of how long-term memories are formed, but it does not provide details about how the Internet can be used to improve long-term recollection of information.
 - G.** Incorrect. The diagram provides an understanding of how details that are important to people can become stored because of an effort made to recall them. However, the diagram does not show how people decide which information is important and which is not.
 - H. CORRECT.** The diagram depicts the connections that the human brain maintains between the different forms of memory. It also illustrates the idea that repetition and rehearsal are important steps in creating memories, as unrehearsed information will be forgotten. This supports the passage by highlighting the idea that access to search engines and other tools leads people to skip rehearsal and repetition steps that create memories, because people know that the information is readily accessible.

55. The question asks for the evidence from the passage that is most relevant to the claim in paragraph 7 that “ ‘far from making us stupid, these technologies are the only things that will keep us smart.’ ”
- A. Incorrect. Whether the participants decided to use the Internet to answer easy trivia questions varied based on the options that the participants were given during the first part of the experiment and, therefore, cannot be relevant to the claim in paragraph 7. Even when given the option of using the Internet, some participants chose to recall information from memory instead.
 - B. **CORRECT.** The assertion made in paragraph 3 that states that cognitive offloading allows for “people’s minds [to be] free for other cognitive feats, such as connecting data, learning new information, or solving problems” is relevant to the claim in paragraph 7 because it indicates that the ability to store large amounts of information within the brain does not necessarily make someone smart. It also suggests that if people did not have to use so much effort simply organizing and storing information, their brain would be free to conduct higher-order tasks: “the Internet, serving as a vast extended memory, allows people to digitally access and retrieve much larger volumes of information. Consequently, people’s minds are free for other cognitive feats, such as connecting data, learning new information, or solving problems” (paragraph 3).
 - C. Incorrect. The discussion in the passage connecting how people organize information in their mind and their ability to recall that information focuses on the process of organizing information within human memory rather than on how technology helps keep people’s minds available for complex thoughts.
 - D. Incorrect. Although the passage provides an accurate description of transactive memory, it provides no indication of how using such memory would advance a person’s ability to maintain or improve intelligent thought.

- 56.** The question asks which sentence from the passage suggests that using Internet search engines may lead people to rely less on their own ability to recall information.
- E.** Incorrect. While the sentence in paragraph 1 refers to the increase in use that has made the Internet “an integral component” of everyday life for many people, it does not address memory or explain the effect of Internet use on a person’s ability to recall information.
 - F.** Incorrect. Although the sentence in paragraph 2 refers to research that was conducted to determine how the use of the Internet affects a person’s memory, the sentence simply explains one guideline of the study. The fact that the study required one group of participants to use Google does not indicate whether using a search engine affects the degree to which people rely on their own ability to recall information.
 - G. CORRECT.** The sentence in paragraph 2 reveals the results of a study that allowed half the participants to use Google to obtain answers to trivia questions and initially required the other half to use only their memory to answer questions. The sentence states that “83 percent of the Internet group continued to consult Google in the second round” and that “only 63 percent of the memory group chose to do so.” These statistics demonstrate that using Google in the first round resulted in participants in the Internet group relying more heavily on the Internet search engine to recall information in the second round, whereas participants who had not used Google in the first round were more likely to rely on their own ability to recall information.
 - H.** Incorrect. The sentence in paragraph 5 describes a task presented to participants in a research study. Although the study was designed to examine “how people evaluate which information deserves their effort to remember” (paragraph 5), the sentence does not indicate that use of Internet search engines prompted people to rely less on their own ability to recall information.

57. The question asks how the studies presented in the passage are used to illustrate the effect of the Internet on a person's memory.

- A. CORRECT.** The study described in paragraph 5 examined the effect of computer use on the way people evaluate information, specifically "which information deserves their effort to remember," and determined that "those who believed the information would be erased and no longer available could recall 40 percent more facts than those who thought the information would be saved." The study described in paragraph 2 established that the use of Internet search engines increases the "inclination to rely on the Internet in order to retrieve information" (paragraph 3), and the study in paragraph 6 examined how this reliance on technology affects the way people store information: "Overall, participants recalled the information's location more often than the content itself."
- B.** Incorrect. Although a difference in the ability of the human brain and the capacity of the Internet to locate information might seem evident, the studies cited in the passage did not examine the ability or the capacity of either. The studies did not measure what the human brain is capable of but rather how memory is affected by the use of the Internet.
- C.** Incorrect. While the studies explored the Internet's effect on the way information is stored in human memory, the type of information was not described or compared. Instead, the studies indicated that location is the main difference between the information stored in the Internet and the information stored in human memory, noting that the Internet has become "an external source of the recollections and associative networks that constitute memory" (paragraph 6).
- D.** Incorrect. Although it is increasingly common to use the Internet to obtain information (paragraph 2) rather than try to memorize information (paragraph 5), the studies did not examine the difficulty or ease of obtaining/recalling information using either method.

- 58. (120)** There are 5 choices for the first digit, 4 choices for the second digit, 3 choices for the third digit, 2 choices for the fourth digit, and 1 choice for the final digit. The total number of possibilities is $5 \times 4 \times 3 \times 2 \times 1 = 120$.

59. (3) $\frac{147 - x}{12} = 12$
 $147 - x = 144$
 $x = 3$

60. (-3.4) $|(-6) - (-5) + 4.2| - |3 - 9.6| =$
 $|3.2| - |-6.6| = 3.2 - 6.6 = -3.4$

- 61. (300)** Let x be the total number of pages in the workbook. Then, 20% of x is 60. Set up a proportion and solve for x :

$$\frac{20}{100} = \frac{60}{x}$$

$$20x = 6,000$$

$$x = \frac{6,000}{20} = 300 \text{ pages}$$

- 62. (65)** Call the missing angle in the top half of the figure x . The sum of the four angles on the top of the figure is equal to 180° .

$$x + y + 30 + 60 = 180$$

Since x is a vertical angle with the 25° angle, then x is also 25° . Use that to solve for y .

$$25 + y + 30 + 60 = 180$$

$$y + 115 = 180$$

$$y = 65$$

63. (D) $x(x - 2y) = 9[9 - 2(-7)] =$
 $9(9 + 14) = 9(23) = 207$

- 64. (E)** Find the missing angle, angle QPT, of triangle PQT: $180^\circ - 70^\circ - 50^\circ = 60^\circ$

In parallelogram PQRS, angle QPT is congruent to angle QRS, so the measure of angle QRS is also 60° .

65. (D) Break the equations apart to each equal M :

$$M = 3N$$

$$M = \frac{P}{4}$$

$$M = Q + 5$$

$$M = \frac{R}{7}$$

Pick a number to substitute into the equations, and solve the equations to find the values of M , N , P , Q , and R .

Let $M = 2$. Since all the equations are equal to 2, substitute 2 to find each variable.

$$M = 3N$$

$$2 = 3N$$

$$\frac{2}{3} = N$$

$$M = \frac{P}{4}$$

$$2 = \frac{P}{4}$$

$$8 = P$$

$$M = Q + 5$$

$$2 = Q + 5$$

$$-3 = Q$$

$$M = \frac{R}{7}$$

$$2 = \frac{R}{7}$$

$$14 = R$$

Variable R has the greatest value.

66. (F) The total number of desserts ordered is $42 + 23 + 47 + 48 = 160$.

The probability that ice cream was chosen is $\frac{48}{160} = \frac{3}{10} = 30\%$.

67. (C) Set up an inequality to compare the costs:

$$0.15x \leq 10.50$$

$$x \leq 70$$

Therefore, 70 individual sheets of paper would cost \$10.50, so 69 is the greatest number of individual sheets of paper that Macie can buy that would be less expensive than the package.

68. (F) 7:00 p.m. is 6 hours after 1:00 p.m. Calculate the number of degrees the temperature dropped in 6 hours:
 $3 \times 6 = 18$ degrees. Subtract that from the starting point (8 degrees) to find the solution: $8 - 18 = -10$ degrees.

69. (D) The ratio of red to blue to green is 15:7:3. Find the proportion of blue marbles. Add the numbers of the ratio and use the total sum as the denominator:

$$\frac{7}{15 + 7 + 3} = \frac{7}{25}$$

Find the proportion of green marbles: $\frac{3}{25}$.

Since there are a total of 75 marbles, the number of blue marbles is $\frac{7}{25} \times 75 = 21$.
 The number of green marbles is $\frac{3}{25} \times 75 = 9$.

The number of red marbles is $75 - 21 - 9 = 45$. If 2 blue marbles are removed and replaced with 2 green marbles, the number of blue marbles is now 19 and the number of green marbles is now 11. The ratio of red marbles to green marbles is 45:11.

70. (G) Set up a proportion:

$$\frac{x}{416} = \frac{3}{96}$$

$$96x = 1,248$$

$$x = 13 \text{ bundles}$$

71. (C) Since 18 and 24 are both multiples of 6, find the least common multiple of only 18 and 24.

Multiples of 18: 18, 36, 54, 72...

Multiples of 24: 24, 48, 72...

The least common multiple of 6, 18, and 24 is 72.

72. (F) Let x be the number of dozens of eggs for 300 customers. Set up a proportion:

$$\frac{x}{300} = \frac{15}{200}$$

$$200x = 4500$$

$$x = 22.5 \text{ dozen eggs.}$$

Round up to 23 because you can't purchase half an egg.

73. (C) The total number of bottles of juice in the cooler is $5 + 3 + 6 = 14$.

The number of bottles of juice that are not apple juice (grape juice and orange juice) is $3 + 6 = 9$.

So the probability is $\frac{9}{14}$.

- 74. (H)** The radius of the large plate is 20 cm. Use 20 cm to find the area of the large plate:

$$A = \pi r^2 = \pi(20^2) = 400\pi \text{ sq cm}$$

The circumference of the smaller plate is 20π cm. Use that to find the radius, and then the area, of the smaller plate:

$$C = 2\pi$$

$$20\pi = 2\pi r$$

$$r = 10$$

$$A = \pi r^2 = (10^2) = 100\pi \text{ sq cm}$$

Subtract the area of the small plate from the area of the large plate:

$$400\pi - 100\pi = 300\pi \text{ sq cm}$$

- 75. (D)** The question says that an equal number (x) of each type of page space was purchased. To find the number of each type of page space that was purchased, multiply the price per type by x and set it equal to the total amount spent, then solve for x :

$$200x + 350x + 600x = 11,500$$

$$1,500x = 11,500$$

$$x = 10$$

The store purchased 10 units of each type of page space. To find the total amount of page space purchased, multiply each type of page space by 10, and add:

$$\left(10 \times \frac{1}{4} \text{ page}\right) + \left(10 \times \frac{1}{2} \text{ page}\right) + (10 \times 1 \text{ page}) = 17\frac{1}{2} \text{ pages}$$

- 76. (F)** Solve the inequality for x .

$$3x + 8 \leq 92$$

$$3x \leq 84$$

$$x \leq 28$$

The **positive** odd numbers less than 28 are 1, 3, 5, ..., 25, and 27. There are 14 of them.

77. (A) Substitute 3 for y and solve for x :

$$\frac{36}{y} = 4x$$

$$\frac{36}{3} = 4x$$

$$12 = 4x$$

$$3 = x$$

78. (H) Since $\overline{XY} = 20$ cm, use that to find \overline{YZ} :

$$\overline{YZ} = \frac{3}{5}\overline{XY} = \frac{3}{5}(20) = 12 \text{ cm}$$

$$\overline{XZ} = \overline{XY} + \overline{YZ} = 20 + 12 = 32 \text{ cm}$$

79. (C) Calculate the cost of the cloth before tax:

$$1\frac{3}{4} \times 8 = \frac{7}{4} \times 8 = \$14$$

Find the tax for \$14 worth of cloth:

$$14 \times 8\% = 14 \times \frac{8}{100} = \$1.12$$

Add the cost of the fabric and the tax:

$$\$14 + \$1.12 = \$15.12$$

80. (F) To find M , subtract $N - M$ and set it equal to the length:

$$1\frac{1}{3} - M = 5\frac{5}{6}$$

$$-M = 5\frac{5}{6} - 1\frac{1}{3}$$

$$-M = 5\frac{5}{6} - 1\frac{2}{6}$$

$$-M = 4\frac{3}{6}$$

$$M = -4\frac{1}{2}$$

81. (B) Add the four values in the ratio ($177 + 12 + 7 + 4 = 200$) and use the sum as the denominator. Use that to find the fraction of zinc in one of the coins. Then reduce the fraction:

$$\frac{12}{200} = \frac{3}{50}$$

Multiply this fraction by 8 to find the number of grams of zinc in decimal form:

$$\frac{3}{50} \times 8 = \frac{24}{50} = 0.48 \text{ g}$$

- 82. (G)** Jack scored a mean of 15 points per game in each of the first 3 games, so he earned a total of 45 points for the first 3 games. Use that information to calculate the mean over the four games:

$$\frac{45 + 27}{4} = \frac{72}{4} = 18$$

- 83. (B)** Find the number of liters that need to be added. Since $\frac{1}{3}$ of the oil drum is full, $\frac{2}{3}$ of the drum remains empty:

$$\frac{2}{3} \times 4,320 = 2,880 \text{ liters.}$$

Use the conversion $1 \text{ kL} = 1,000 \text{ L}$ to find the number of kL: $\frac{2,880}{1,000} = 2.88 \text{ kL}$

- 84. (F)** To find out how old Nicole was 5 years ago, find out how old Nicole and Carmen are now.

Let N = Nicole's age now.

Let C = Carmen's age now.

$$C + 2 = 17$$

$$N = 3C$$

$$N = 3(15) = 45 \text{ (Nicole's age now)}$$

$$N - 5 = 45 - 5 = 40 \text{ (Nicole's age 5 years ago)}$$

- 85. (C)** Let x be the original amount of the chemical. It loses 20% after each week, which means 80% of the chemical remains at the end of each week. End of first week: $0.80x$

At the end of the second week, 80% of the amount left at the end of the first week remains.

End of second week:

$$0.80(0.80x) = 0.64x \text{ or } 64\%$$

- 86. (G)** One more than an odd integer must be even.

One more than $w - 1$ is w , therefore w must be even. Two times an even integer must be even, therefore $2w$ is even. An even integer decreased by 2 must be even.

Therefore, $2w - 2$ must be even.

- 87. (B)** Find the least common multiple of 2, 3, and 4 — which is 12. So, it takes 12 minutes before all three are back at the starting line. Ann completes 1 lap every 2 minutes, so in 12 minutes she has completed 6 laps.

- 88. (F)** $4(7 - 3x) - (5 - x) =$
 $28 - 12x - 5 + x =$
 $23 - 11x$

- 89. (D)** Add the number of students for each category to find out how many total students were in the survey:

$$12 + 16 + 7 + 5 = 40$$

The number of students who had at least 2 pets are the ones who have 2 pets (7) plus the ones who have 3 or more (5).

The total number of students with at least 2 pets is: $7 + 5 = 12$

The probability of a student in the survey having at least two pets is: $\frac{12}{40} = \frac{3}{10}$

- 90. (E)** Let x be the total number of liters the container can hold.

$$\frac{n + 10}{x} = 60\% \text{ and } \frac{n + 16}{x} = 75\%$$

Solve each equation for x :

Equation 1:

$$\frac{n + 10}{x} = \frac{60}{100}$$

$$\frac{n + 10}{x} = \frac{3}{5}$$

$$3x = 5(n + 10)$$

$$x = \frac{5n + 50}{3}$$

Equation 2:

$$\frac{n + 16}{x} = \frac{75}{100}$$

$$\frac{n + 16}{x} = \frac{3}{4}$$

$$3x = 4(n + 16)$$

$$x = \frac{4n + 64}{3}$$

Now, set the two equations equal to each other and solve for n .

$$\frac{5n + 50}{3} = \frac{4n + 64}{3}$$

$$5n + 50 = 4n + 64$$

$$n + 50 = 64$$

$$n = 14 \text{ liters}$$

91. (B) $5x^3 + 3x + 9 + \frac{1}{x^2}$
 $= 5(10^3) + 3(10) + 9 + \frac{1}{10^2}$
 $= 5,000 + 30 + 9 + \frac{1}{100} = 5,039.01$

92. (E) The length of one side of the square is 6 cm. Since R, S, and T are midpoints, then \overline{TM} , \overline{MR} , \overline{RN} , and \overline{NS} are all equal to 3 cm. Triangles TMR and RNS are both right triangles, so the area of one of the triangles is $\frac{1}{2} \times 3 \times 3 = \frac{9}{2}$. The triangles are congruent, so the sum of the areas is $\frac{9}{2} + \frac{9}{2} = 9$ sq cm.

93. (D) Let x be the amount spent on planned expense in one year:

$$\frac{x}{29,600} = \frac{5}{8}$$

$$x = \frac{5}{8}(29,600) = 18,500$$

94. (G) Figure out how many different topping pairs are possible. Use 1, 2, 3, 4, 5, 6, 7 to represent the toppings and create a list of possible pairs:

- 1,2; 1,3; 1,4; 1,5; 1,6; 1,7
 2,3; 2,4; 2,5; 2,6; 2,7
 3,4; 3,5; 3,6; 3,7
 4,5; 4,6; 4,7
 5,6; 5,7
 6,7

So there are 21 different topping combinations for one pizza.

Since there are 3 pizza sizes, multiply the total number of combinations by 3 to get the total number of different pizzas Cody can create: $3 \times 21 = 63$.

95. (D) To find by what percent the number of families with 1 cat is greater than the number of families with 2 cats, calculate the difference between the two numbers and divide by the number of families with 2 cats:

$$\frac{42 - 35}{35} = \frac{7}{35} = \frac{1}{5} = 0.20 \text{ or } 20\%$$

- 96. (H)** One side of the square base is 3 ft long. Since the height of the box is 3 times the length, then the height is $3 \times 3 = 9$ ft. The volume of a rectangular prism is length \times height \times width. The volume of the wooden box is:
 $V = 3 \times 3 \times 9 = 81$ cu ft.

- 97. (B)** Calculate each mean speed:

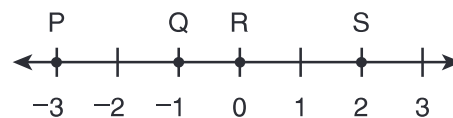
$$R = \frac{65}{5} = 13 \text{ kph}$$

$$S = \frac{72}{4} = 18 \text{ kph}$$

Then calculate the difference of both mean speeds:

$$S - R = 18 - 3 = 5 \text{ kph}$$

- 98. (G)**



Find the midpoint of PQ and RS:

$$\text{Midpoint of PQ} = \frac{-1 - (-3)}{2} = \frac{2}{2} = 1 \text{ unit.}$$

The midpoint of PQ is located 1 unit from each endpoint, so the midpoint is at -2 .

$$\text{Midpoint of RS} = \frac{2 - 0}{2} = \frac{2}{2} = 1 \text{ unit.}$$

The midpoint of RS is located 1 unit from each endpoint, so the midpoint is at 1.

The distance between the two midpoints is $1 - (-2) = 3$ units.

- 99. (D)** If 1 L = 1,000 cu cm, then 1 L = 1,000 mL. Set up a proportion, letting x = the amount of cubic millimeters in 1,000 cubic centimeters.

$$\frac{1,000 \text{ cu mm}}{1 \text{ L}} = \frac{x \text{ cu mm}}{1,000 \text{ cu mm}}$$

Solve for x : 1,000,000 cubic millimeters are in 1,000 cubic centimeters.

- 100. (E)** Both $x + 1$ and $y + 2$ are radii (each is a radius). So, set them equal to each other and solve for y .

$$y + 2 = x + 1$$

$$y = x - 1$$

101. (C) There are 5 sections between M and T. To find the length of one of these sections, find the distance between M and T and divide by 5:

$$\left(\frac{5}{8} - \left(-\frac{1}{4}\right)\right) \div \frac{5}{1} =$$

$$\left(\frac{5}{8} + \frac{2}{8}\right) \div \frac{5}{1} =$$

$$\frac{7}{8} \div \frac{5}{1} = \frac{7}{8} \times \frac{1}{5} = \frac{7}{40}$$

R is 3 sections away from M, so add:

$$-\frac{1}{4} + 3\left(\frac{7}{40}\right) = -\frac{10}{40} + \frac{21}{40} = \frac{11}{40}$$

R is located at $\frac{11}{40}$.

102. (H) Let x be the number of minutes Phan used his internet service in the month. Phan's monthly charges were $18 + 0.024x$. Since Deion's charges were the same as Phan's, set the expression equal to 30 and solve for x :

$$18 + 0.024x = 30$$

$$0.024x = 12$$

$$x = 500$$

Phan used his service for 500 minutes.

103. (C) The height of the triangle is 4 units. The length of the base is $n - m$. So the area is

$$A = \frac{1}{2}(n - m)(4) = 2(n - m).$$

104. (E) $0.06 = \frac{6}{100}$. Simplify the fraction to find the answer

$$\frac{6}{100} = \frac{3}{50} \text{ so, } x = 3.$$

105. (B) Create a chart using the given information and use subtraction to figure out how many cars are not red **and** do not have a back-up camera:

	Red	Not Red	TOTAL
Back-up Camera	4	6 (10-4)	10
No back-up Camera		32 (38-6)	
TOTAL	12	38 (50-12)	50

The probability of selecting a car that meet both conditions from the total of 50 cars at the dealership is:

$$\frac{32}{50} = \frac{16}{25}$$

106. (F) The total number of cards in the box is $8 + 6 + 5 + 4 + 1 = 24$. Set up a proportion to figure out which card has exactly a 1 in 4 chance of being picked at random. $\frac{x}{24} = \frac{1}{4}$ or $x = 6$. The dog card has a 1 in 4 chance of being randomly selected.

107. (C) Separate the compound inequality into two pieces:

$$2x - 2 \leq y \text{ and } y \leq 4x + 10$$

Substitute $y = 1$ into each inequality and solve for x :

$$2x - 2 \leq 1$$

$$2x \leq 3$$

$$x \leq \frac{3}{2}$$

$$1 \leq 4x + 10$$

$$-9 \leq 4x$$

$$-\frac{9}{4} \leq x$$

The solution is the number line that shows that x is greater than or equal to $-2\frac{1}{4}$ and less than or equal to $1\frac{1}{2}$.

108. (G) $\frac{14}{21} = \frac{p}{7}$
 $21p = 7(14)$
 $21p = 98$
 $p = \frac{98}{21} = \frac{14}{3}$

109. (A) The total number of balls in the box is $7 + 14 + 21 = 42$.

The probability that the ball is black is

$$\frac{7}{42} = \frac{1}{6}$$

110. (G) None of the 80 students ($800 - 720$) who answered "no" to Question A ($800 - 720$) could have answered "yes" to both questions. Therefore, the least possible number of students who could have answered "yes" to both questions, can be found by subtracting the 80 who answered "no" to Question A from the 640 who answered "yes" to Question B or $640 - 80 = 560$.

111. (A) Raoul is at least 3 years older than Vahn, which can be written as:

$$r \geq v + 3.$$

Rewrite this inequality to match the answer options:

$$r - v \geq 3$$

112. (F) Since 5.6 ricks and 12.88 dalts are both equal to 1 sind, then 5.6 ricks = 12.88 dalts. To calculate the number of dalts (d) in 1 rick, set up a proportion:

$$\frac{5.6}{12.88} = \frac{1}{d}$$

$$5.6d = 12.88$$

$$d = 2.3$$

113. (D) The shelf, when full, holds 36 cans. When the shelf is half full, it holds 18 cans.

$$x - 4 = 18$$

$$x = 22$$

114. (G) The probability of the cup landing on its side is 72%. Carlos tossed the cup a total of 200 times (50 + 150). The number of times the cup lands on its side is 72% of 200:

$$0.72 \times 200 = 144$$

FORM B

**SAMPLE TEST -
ANSWER KEY**

Answer Key for Sample Form B

1. C	14. G	27. A	40. G	53. C	66. F	79. C	92. E	105. B
2. F	15. A	28. F	41. D	54. H	67. C	80. F	93. D	106. F
3. C	16. G	29. D	42. E	55. B	68. F	81. B	94. G	107. C
4. H	17. A	30. G	43. B	56. G	69. D	82. G	95. D	108. G
5. B	18. G	31. C	44. F	57. A	70. G	83. B	96. H	109. A
6. H	19. B	32. E	45. C	58. 120	71. C	84. F	97. B	110. G
7. C	20. G	33. B	46. E	59. 3	72. F	85. C	98. G	111. A
8. E	21. B	34. F	47. A	60. -3.4	73. C	86. G	99. D	112. F
9. C	22. F	35. D	48. F	61. 300	74. H	87. B	100. E	113. D
10. F	23. D	36. E	49. D	62. 65	75. D	88. F	101. C	114. G
11. B	24. F	37. A	50. F	63. D	76. F	89. D	102. H	
12. H	25. A	38. G	51. D	64. E	77. A	90. E	103. C	
13. B	26. H	39. C	52. G	65. D	78. H	91. B	104. E	