

The New York City Department of Education
2021 Specialized High School Admissions Test

GENERAL DIRECTIONS

Student Name: _____

Identifying Information

Turn to Side 1 of the answer sheet.

Notify the proctor immediately if you are ill or should not be taking this test. Do not sign the statement or begin the test. Return your answer sheet to the proctor.

Line 1: Read the statement and sign your name in the space following the word "signature." Do not print your name.

Line 2: Print today's date, using the numbers of the month, the day, and the year.

Line 3: Print your birth date with the number of the month first, then the number of the day, then the last two digits of the year. For example, a birth date of March 1, 2005, would be 3-1-05.

Grid 4: Print the letters of your first name, or as many as will fit, in the boxes. Write your name exactly as you did on the application. If you have a middle initial, print it in the box labeled "MI." Then print the letters of your last name, or as much as will fit, in the boxes provided. Below each box, fill in the circle that contains the same letter as the box. If there is a space or a hyphen in your name, fill in the circle under the appropriate blank or hyphen.

Make dark marks that completely fill the circles. If you change a mark, be sure to erase the first mark completely.

Grid 5: Carefully copy the order in which you ranked the specialized high schools on your Test Ticket onto Grid 5. If Grid 5 is not marked correctly, your admission to a specialized high school will be affected because your admission is based on the score you achieve and the order in which you rank your school preferences in this grid. The school choices indicated on your answer sheet are final.

Fill in one and only one circle for each school for which you wish to be considered. You may make as few as one or as many as eight choices. To increase your chances of being assigned to one of the specialized high schools, you are encouraged to make more than one choice. You **must** fill in a first choice school. Do not fill in a school more than once. Do not fill in the same school for each choice. Fill in only one circle in a row and only one circle in a column.

Grid 6: Complete the grid with your date of birth. Print the first three letters of the month in the first box, the number of the day in the next box, and the year in the last box. Then fill in the corresponding circles.

Grid 7:

1. Print the name of the school where you are now enrolled in the space at the top of the grid.
2. In the boxes marked "SCHOOL CODE," print the six-digit code that identifies your school and fill in the circle under the corresponding number or letter for each digit of the school code. (You can find your school code on your Test Ticket. If it is not there, tell the proctor, and the proctor will get the school code for you.)
3. If you attend a private or parochial school, fill in the circle marked "P."

Grid 8: Print your student ID number in Grid 8. You can find your student ID number on your Test Ticket. In the boxes, print your nine-digit student ID number. Below each box, fill in the circle containing the same number as in the box.

**DO NOT OPEN THIS BOOKLET
UNTIL YOU ARE TOLD TO DO SO.
TURN YOUR BOOKLET OVER TO THE BACK COVER.**

GENERAL DIRECTIONS, continued

Identifying Information, continued

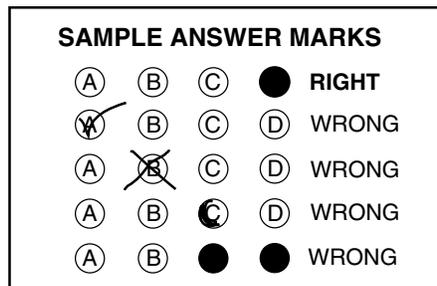
Grid 9: In most cases, Grid 9 is already filled in for you. If it is not, copy the letter and numbers shown in the upper-right corner of your test booklet into the boxes. Below each box, fill in the circle containing the same letter or number as the box.

Now review Side 1 to make sure you have completed all lines and grids correctly. Review each column to see that the filled-in circles correspond to the letters or numbers in the boxes above them.

Turn your answer sheet to Side 2. Print your test booklet letter and numbers, and your name, first name **first**, in the spaces provided.

Marking Your Answers

Mark each of your answers on the answer sheet in the row of circles corresponding to the question number printed in the test booklet. Use only a Number 2 pencil. If you change an answer, be sure to erase it completely. Be careful to avoid making any stray pencil marks on your answer sheet. Each question has only one correct answer. If you mark more than one circle in any answer row, that question will be scored as incorrect.



You can use your test booklet or the provided scrap paper to take notes or solve questions; however, your answers must be recorded on the answer sheet in order to be counted. **You will not be able to mark your answers on the answer sheet after time is up, and answers left in the test booklet will not be scored.**

DO NOT MAKE ANY MARKS ON YOUR ANSWER SHEET OTHER THAN FILLING IN YOUR ANSWER CHOICES.

Planning Your Time

You have 180 minutes to complete the entire test. **How you allot the time between the English Language Arts and Mathematics sections is up to you.** If you begin with the English Language Arts section, you may go on to the Mathematics section as soon as you are ready. Likewise, if you begin with the Mathematics section, you may go on to the English Language Arts section as soon as you are ready. If you complete the test before the allotted time (180 minutes) is over, you may go back to review questions in either section.

Be sure to read the directions for each section carefully. Each question has only one correct answer. Choose the best answer for each question. When you finish a question, go on to the next, until you have completed the last question. Your score is determined by the number of questions you answer correctly. **Answer every question, even if you may not be certain which answer is correct.** Don't spend too much time on a difficult question. Come back to it later if you have time. If time remains, you should check your answers.

Students must stay for the entire test session.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO



B

Copyright © 2020 Pearson. All rights reserved. No part of this document may be copied, reproduced, modified, or transmitted by any means, electronic or mechanical.

1123353

1 2 3 4 5 A B C D E

Printed in the USA

ISD32507

SAMPLE TEST, FORM B
PART 1 — ENGLISH LANGUAGE ARTS
57 QUESTIONS

REVISING/EDITING
QUESTIONS 1-9 (PART A AND PART B)

REVISING/EDITING PART A

DIRECTIONS: Read and answer the following questions. You will be asked to recognize and correct errors so that the sentences or short paragraphs follow the conventions of standard written English. You may write in your test booklet as needed to take notes. You should reread relevant parts of the sentences or paragraphs, while being mindful of time, before marking the best answer for each question.

1. Which revision corrects the error in sentence structure in the paragraph?

The land on Earth has not always been separated into the seven continents, at one time a massive supercontinent, known as Pangaea, covered one-third of Earth's surface. Additionally, the supercontinent was surrounded by ocean waters called Panthalassa, much of which were in Earth's Southern Hemisphere. Geologists believe that the supercontinent split apart over millions of years because of the movement of the tectonic plates that form Earth's crust. In fact, experts predict that over the next 250 million years the movement of the plates will cause the seven continents to merge into a supercontinent again.

- A. continents. At
- B. surface; additionally,
- C. Panthalassa. Much
- D. crust, in fact,

2. Which sentence contains an error in its construction and should be revised?

(1) Walking dogs, cleaning kennels, hand-feeding newborn kittens, and supporting the pet-adoption process, the animal shelter is looking for volunteers to help with a variety of tasks. (2) Working at the animal shelter is a great way for young people, especially those who aspire to care for and protect animals, to gain valuable work experience. (3) In addition to hands-on training with animal care, volunteers will learn important job skills, such as punctuality, responsibility, and personal initiative. (4) Caring for animals can also help volunteers develop empathy, which is the awareness and understanding of the feelings of others.

- E. sentence 1
F. sentence 2
G. sentence 3
H. sentence 4
3. Which edit should be made to correct the sentence?

The Colosseum in Rome, Italy which is considered one of the “new” Seven Wonders of the World, is the largest amphitheater ever built and once could hold up to 50,000 spectators.

- A. Delete the comma after **Rome**.
B. Insert a comma after **Italy**.
C. Delete the comma after **World**.
D. Insert a comma after **built**.

4. How should this sentence be revised?

To promote their club, a bake sale will be sponsored by members of the debate team on Wednesday.

- E. To promote their club, on Wednesday a bake sale will be sponsored by members of the debate team.
- F. On Wednesday, to promote their club, a bake sale will be sponsored by members of the debate team.
- G. To promote their club, members of the debate team will sponsor a bake sale on Wednesday.
- H. Members of the debate team, on Wednesday to promote their club, will sponsor a bake sale.

CONTINUE TO THE NEXT PAGE ►

REVISING/EDITING PART B

DIRECTIONS: Read the text below and answer the questions following it. You will be asked to improve the writing quality of the text and to correct errors so that the text follows the conventions of standard written English. You should reread relevant parts of the text, while being mindful of time, before marking the best answer for each question.

The Free College Debate

- (1) A college degree has become an essential tool in an increasingly competitive job market. (2) Yet, the price of higher education, at both private and public universities, continues to rise. (3) Helping students cover the cost of attending college is an important issue.
- (4) Many people agree that a college education should be a financially realistic option for those who aspire to obtain a degree. (5) For example, in 2017, the New York State legislature passed a bill creating a program to cover the tuition costs for nearly one million students. (6) The state of Tennessee also has a program that offers all students scholarships and mentoring services if they attend one of the state’s community colleges. (7) Proponents generally believe that these programs are a step in the right direction for making college affordable for students who would have had to take out loans or who would have decided not to pursue higher education at all.
- (8) On the other hand, some people oppose bills like the ones in New York and Tennessee because they believe “free” college programs are unsustainable. (9) In order to implement these types of programs, a state pays the college on behalf of the students using funds from the state’s budget, which primarily comes from state taxes. (10) As more students choose to attend college, more funds will be needed to cover the costs. (11) Additionally, many students do not finish college within four years because they switch majors or because they have to work. (12) Critics believe that these circumstances will inevitably lead to an increase in taxes, a decline in the quality of the education offered by the schools, or both. (13) They think narrower college-affordability efforts that target the students who need the most support, such as first-generation college students, may be more effective and viable solutions.
- (14) Faculty and students at higher-education institutions can work to keep costs down. (15) In light of increased access to computers, mobile devices, and the Internet, there are more opportunities for students to take courses online, thus reducing the need for and cost of maintaining physical classrooms. (16) Additionally, colleges should account for experience by allowing students to demonstrate their knowledge in order to avoid having to pay to sit through classes on subjects they have already mastered. (17) Similarly, college-bound high school students need to be prepared for college-level work so that they do not have to spend money on remedial classes.
- (18) The solutions to the problems associated with rising college costs are not simple. (19) Passing legislation that boosts college affordability will take time, input from experts with different ideas, and careful planning.

5. Which sentence should replace sentence 3 to best state the topic of the passage?
- A. Several states have implemented scholarship programs that allow students to attend public universities and community colleges at a very low tuition rate or for free.
 - B. Determining the most effective way to make college affordable is a complex issue, and there are differing opinions about how to approach the problem.
 - C. Higher-education institutions should reduce the cost of a college education by finding ways to help students avoid paying for unnecessary classes and materials.
 - D. The main concern related to the issue of college affordability is that helping students cover tuition could affect the quality of the education they receive.

6. Read this sentence.

Some note that several states have made their community or state colleges low-cost or free for students with limited resources.

Where should the sentence be added to best support the ideas in the second paragraph (sentences 4–7)?

- E. at the beginning of the paragraph (before sentence 4)
 - F. between sentences 4 and 5
 - G. between sentences 5 and 6
 - H. between sentences 6 and 7
7. Which sentence presents information that shifts away from the topic of the third paragraph (sentences 8–13) and should be deleted?
- A. sentence 10
 - B. sentence 11
 - C. sentence 12
 - D. sentence 13

- 8.** Which phrase should be added before sentence 14 to best transition to the ideas in the fourth paragraph (sentences 14–17)?
- E.** Because college affordability is a complicated issue,
 - F.** With so many opinions about how to make college affordable,
 - G.** Until college becomes more affordable,
 - H.** Although some college affordability programs have been successful,
- 9.** Which concluding sentence should be added after sentence 19 to support the topic of the passage?
- A.** The increasing use of technology in college classrooms and the financial support from tuition scholarship programs will make colleges more affordable for many students.
 - B.** Statewide tuition scholarship programs will make college more affordable for many students, but these programs may lead to new problems.
 - C.** Until the problems associated with the rising cost of college are solved, many students will pursue other options after graduating high school.
 - D.** When the issue of college affordability is resolved, students will be able to make decisions about pursuing higher education without cost being the deciding factor.

READING COMPREHENSION

QUESTIONS 10–57

DIRECTIONS: Read each of the following six texts, and answer the related questions. You may write in your test booklet as needed to take notes. You should reread relevant parts of each text, while being mindful of time, before marking the best answer for each question. Base your answers only on the content within the text.

CONTINUE TO THE NEXT PAGE ►

Massachusetts: Lowell National Historical Park

- 1 During the first half of the 19th century, Lowell, Massachusetts, quickly transformed itself from a farm town to a bustling industrial city. In time, Lowell became a model of industry, gaining global recognition for its state-of-the-art technology, innovative canal and dam system, mill architecture, boardinghouses, churches, and ethnic neighborhoods. Young Yankee¹ women, immigrant families, and European tourists all flocked to Lowell to find work at one of the many textile mills, or visit the industrious city that was becoming a popular tourist destination. As one Scottish traveler observed during his visit to America, "Niagara² and Lowell are the two objects I will longest remember in my American journey, the one the glory of American scenery, the other of American industry." Today, Lowell National Historical Park welcomes visitors to enjoy the sights of Lowell and learn about the history of one of America's most significant industrial cities.
- 2 The Boston merchants who founded Lowell in 1821 and named it after Francis Cabot Lowell chose to locate the town along Massachusetts's Merrimack River to take advantage of the kinetic energy offered by the Pawtucket waterfalls. Over six miles of canals powered the waterwheels of Lowell's mills, whose massive five- and six-story brick buildings dominated the city's landscape. . . . The most recognized of these buildings are the Lowell Manufacturing Company chartered in 1821, the Suffolk or Wannalancit Mill completed around the 1880s, the Boott Mill Company established in 1835, and the Boott Mill Boardinghouse that opened in 1838. By the 1850s, 40 textile mills employing over 10,000 workers stretched for about a mile along the river. . . .
- 3 The city's female workforce was significant in the history of Lowell. From the early to mid-1800s, women left the constricted lifestyle of small rural towns and rural areas for independent industrial city life. Most were young single Yankee girls, who were tired of the limited opportunities offered by their domestic work.³ Women found that Lowell's mills offered monthly wages for their services and provided them room and board. Although these women gained economic independence in Lowell, the mill boardinghouse keepers constantly supervised their social activities, for which they hardly had any time, considering their daily 12- to 14-hour work schedules. At the end of the day, the factory bell signaled the "mill girls" to return to their boardinghouses. They were expected to adhere to the strict code of conduct respecting curfew and attending church.
- 4 Yankee "mill girls" continued to dominate the Lowell workforce until the 1840s, when the city began to find it difficult to compete with the growing industrial development in other New England communities. As profits fell, the mill industry cut wages. These wage cuts, deteriorating working conditions, and long workdays led the "mill girls" to protest and organize strikes. When their demands went unheard, the women left Lowell, and immigrant groups replaced them in the workforce. Despite the low wages and unhealthy work conditions, immigrants were eager to find work.
- 5 The immigrants replacing the Yankee "mill girls" during the 1840s were predominantly Irish Catholics, who traveled to America during the Great Potato Famine. Although Lowell received an influx of Irish families during this time, the Irish were a part of the city's history from its birth,

¹**Yankee:** native to New England

²**Niagara:** a town in northwestern New York State well known as the location of Niagara Falls, a series of waterfalls on the Canadian border

³**domestic work:** household duties like cooking and cleaning

and before the “mill girls” arrived, they built Lowell’s historic canals, mills, and boardinghouses. Initially, Lowell’s Protestant community was slow to welcome Irish immigrants, but the hostility between Yankee Protestants and Irish Catholics eventually disappeared. Irish immigrants dominated the industrial scene until the Civil War, when other immigrant groups began to work in the city mills.

- 6 Like the Irish, the French-Canadians, Greeks, Poles, Portuguese, Russian Jews, and Armenians who came to work in Lowell’s mills faced long work hours, low wages, and poor living conditions in the city’s crowded tenements. By the time Lowell’s industry declined, the city had become an ethnic melting pot, where each group claimed its own distinct neighborhood, like the Irish immigrants’ “New Dublin” or “Acre,” and the French-Canadians’ “Little Canada.” The city officially began to close down its mills in the 1920s and ’30s after Lowell’s outdated mills could no longer compete against the state-of-the-art cotton mills in other communities and working conditions continued to decline as Lowell’s companies stopped reinvesting in their mills. . . . Despite a brief resurgence during World War II, the city shut down its last surviving mill by the mid-1950s.

From “Massachusetts: Lowell National Historical Park”—Public Domain/National Park Service

10. Read this sentence from paragraph 1.

As one Scottish traveler observed during his visit to America, “Niagara and Lowell are the two objects I will longest remember in my American journey, the one the glory of American scenery, the other of American industry.”

The author most likely includes the quotation from the Scottish traveler in order to

- E. suggest that people around the world saw the direct contribution of nature and industry to the United States.
- F. compare the natural and industrial attractions in the United States at that time.
- G. convey the idea that the United States offered both natural and industrial attractions.
- H. imply that the natural resources in the United States contributed to the development of industry.

11. Which sentence from paragraph 2 best supports the idea that Lowell became “a bustling industrial city” (paragraph 1)?
- A. “The Boston merchants who founded Lowell in 1821 and named it after Francis Cabot Lowell chose to locate the town along Massachusetts’s Merrimack River to take advantage of the kinetic energy offered by the Pawtucket waterfalls.”
 - B. “Over six miles of canals powered the waterwheels of Lowell’s mills, whose massive five- and six-story brick buildings dominated the city’s landscape.”
 - C. “The most recognized of these buildings are the Lowell Manufacturing Company chartered in 1821, the Suffolk or Wannalancit Mill completed around the 1880s, the Boott Mill Company established in 1835, and the Boott Mill Boardinghouse that opened in 1838.”
 - D. “By the 1850s, 40 textile mills employing over 10,000 workers stretched for about a mile along the river.”
12. Read this sentence from paragraph 3.

From the early to mid-1800s, women left the constricted lifestyle of small rural towns and rural areas for independent industrial city life.

Which statement best describes how the sentence fits into the overall structure of the passage?

- E. It provides a transition from a description of the mills to a description of the workforce in those mills.
 - F. It indicates a shift in tone from positive and hopeful to negative and dissatisfied with working conditions at the mill.
 - G. It summarizes a challenge that led many women to leave their hometown and seek work in urban areas.
 - H. It begins a comparison of the mill workforce between the mid-1800s and the late 1800s.
13. Read this sentence from paragraph 5.

Although Lowell received an influx of Irish families during this time, the Irish were a part of the city’s history from its birth, and before the “mill girls” arrived, they built Lowell’s historic canals, mills, and boardinghouses.

How does this sentence contribute to the development of ideas in the passage?

- A. It implies that Lowell was founded by early Irish immigrants.
- B. It emphasizes the important role Irish immigrants played in Lowell’s history.
- C. It suggests that the new Irish immigrants were readily accepted into the community.
- D. It highlights the working relationship between the mill girls and the new Irish immigrants.

- 14.** Which sentence best summarizes the mill girls' experience as the dominant workforce in Lowell?
- E.** The mill girls were eager to leave their domestic duties and small towns behind, so they went to work in the mills of Lowell.
 - F.** Originally, the mill girls were satisfied to work in Lowell, but as they left their jobs at the Lowell mills, immigrants arrived to fill the empty positions.
 - G.** Young women left home to work in the Lowell mills, but the mill girls soon became dissatisfied with the working conditions and rigid boardinghouse rules.
 - H.** The mill girls embraced city life when they came to work in Lowell's mills, but when their protests about unfavorable working conditions went unanswered, they left.
- 15.** A central idea that Lowell was "one of America's most significant industrial cities" (paragraph 1) is conveyed in the passage primarily through a description of the
- A.** canals, mills, and boardinghouses that were built by immigrants.
 - B.** mill girls and immigrants who comprised Lowell's workforce.
 - C.** development of the mills and the workforce established to support them.
 - D.** cultural diversity of the people who lived in the area.
- 16.** The reason Lowell lost its status as an industrial leader is best illustrated through the
- E.** description of poor living and working conditions.
 - F.** explanation for why some immigrant groups struggled to live together.
 - G.** comparison with other mills that used modern methods.
 - H.** information about the mills opening temporarily during World War II.

Excerpt from *A Tramp Abroad*

by Mark Twain

- 1 Now and then, while we¹ rested, we watched the laborious ant at his work. I found nothing new in him—certainly nothing to change my opinion of him. It seems to me that in the matter of intellect the ant must be a strangely overrated bird. During many summers now I have watched him, when I ought to have been in better business, and I have not yet come across a living ant that seemed to have any more sense than a dead one. I refer to the ordinary ant, of course; I have had no experience of those wonderful Swiss and African ones which vote, keep drilled armies, . . . and dispute about religion. Those particular ants may be all that the naturalist paints them, but I am persuaded that the average ant is a sham.

- 2 I admit his industry, of course; he is the hardest working creature in the world—when anybody is looking—but his leather-headedness is the point I make against him. He goes out foraging, he makes a capture, and then what does he do? Go home? No; he goes anywhere but home. He doesn't know where home is. His home may be only three feet away; no matter, he can't find it. He makes his capture, as I have said; it is generally something which can be of no sort of use to himself or anybody else; it is usually seven times bigger than it ought to be; he hunts out the awkwardest place to take hold of it; he lifts it bodily up in the air by main force, and starts—not toward home, but in the opposite direction; not calmly and wisely, but with a frantic haste which is wasteful of his strength; he fetches up against a pebble, and, instead of going around it, he climbs over it backwards, dragging his booty after him, tumbles down on the other side, jumps up in a passion, kicks the dust off his clothes, moistens his hands, grabs his property viciously, yanks it this way, then that, shoves it ahead of him a moment, turns tail and lugs it after him another moment, gets madder and madder, then presently hoists it into the air and goes tearing away in an entirely new direction; comes to a weed; it never occurs to him to go around it. No; he must climb it, and he does climb it, dragging his worthless property to the top—which is as bright a thing to do as it would be for me to carry a sack of flour from Heidelberg to Paris by way of Strasburg steeple; when he gets up there he finds that that is not the place; takes a cursory glance at the scenery, and either climbs down again or tumbles down, and starts off once more—as usual, in a new direction. At the end of half an hour he fetches up within six inches of the place he started from, and lays his burden down. Meantime, he has been over all the ground for two yards around, and climbed all the weeds and pebbles he came across. Now he wipes the sweat from his brow, strokes his limbs, and then marches aimlessly off, in as violent a hurry as ever. He traverses a good deal of zig-zag country, and by and by stumbles on his same booty again. He does not remember to have ever seen it before; he looks around to see which is not the way home, grabs his bundle, and starts. He goes through the same adventures he had before; finally stops to rest, and a friend comes along.

- 3 Evidently the friend remarks that a last year's grasshopper leg is a very noble acquisition, and inquires where he got it. Evidently the proprietor does not remember exactly where he did get it, but thinks he got it "around here somewhere." Evidently the friend contracts to help him freight it home. Then, with a judgment peculiarly antic (pun not intentional), they take hold of opposite ends of that grasshopper leg and begin to tug with all their might in opposite directions. Presently they take a rest, and confer together. They decide that something is wrong, they can't make out

¹**we:** the author and his fictional travel companion

what. Then they go at it again, just as before. Same result. Mutual recriminations follow. Evidently each accuses the other of being an obstructionist. They warm up, and the dispute ends in a fight. They lock themselves together and chew each other's jaws for a while; then they roll and tumble on the ground till one loses a horn or a leg and has to haul off for repairs. They make up and go to work again in the same old insane way, but the crippled ant is at a disadvantage; tug as he may, the other one drags off the booty and him at the end of it. Instead of giving up, he hangs on, and gets his shins bruised against every obstruction that comes in the way. By and by, when that grasshopper leg has been dragged all over the same old ground once more, it is finally dumped at about the spot where it originally lay. The two perspiring ants inspect it thoughtfully and decide that dried grasshopper legs are a poor sort of property after all, and then each starts off in a different direction to see if he can't find an old nail or something else that is heavy enough to afford entertainment and at the same time valueless enough to make an ant want to own it. . . .

- 4 Science has recently discovered that the ant does not lay up anything for winter use. . . . He does not work, except when people are looking, and only then when the observer has a green, naturalistic look, and seems to be taking notes. This amounts to deception, and will injure him for the Sunday schools. He has not judgment enough to know what is good to eat from what isn't. This amounts to ignorance, and will impair the world's respect for him. . . . He cannot stroll around a stump and find his way home again. This amounts to idiocy, and once the damaging fact is established, thoughtful people will cease to look up to him. It is strange beyond comprehension that so manifest a humbug as the ant has been able to fool so many nations and keep it up so many ages without being found out.

From A TRAMP ABROAD by Mark Twain—Public Domain

- 17.** The phrase “those wonderful Swiss and African ones which vote, keep drilled armies, . . . and dispute about religion” in paragraph 1 shows that the author
- A.** believes that the behavior of the ants is reflected in other living creatures.
 - B.** acknowledges that his observations of a few do not necessarily apply to all.
 - C.** knows that disproving a commonly held belief is challenging.
 - D.** accepts that there are flaws in his interpretation of the behavior of the ants.
- 18.** In paragraph 2, how do the words “grabs,” “yanks,” and “tearing away” contribute to the meaning of the excerpt?
- E.** They highlight the ant's belief that his work is important.
 - F.** They illustrate that the ant is more efficient working on his own.
 - G.** They indicate the speed with which the ant completes his tasks.
 - H.** They emphasize the ant's anxious efforts to be productive.

19. Read this sentence from paragraph 2.

At the end of half an hour he fetches up within six inches of the place he started from, and lays his burden down.

How does the sentence contribute to the development of the central idea of the excerpt?

- A. It reveals that the ant is aware of the purposelessness of his efforts and that he does not enjoy his work.
 - B. It highlights how little the ant accomplishes despite the great amount of effort he exerts.
 - C. It suggests that the ant has an industrious attitude and does not easily give up.
 - D. It emphasizes that the ant does not thoughtfully consider how difficult it would be to carry his capture for such a long period of time.
20. The description at the end of paragraph 2 of the ant repeating his actions conveys the idea that
- E. mistakes are necessary in order to make progress.
 - F. rushing to reach a goal may lead to an undesirable outcome.
 - G. breaking out of a familiar pattern of events is difficult.
 - H. industriousness and foolishness is an unfortunate combination.
21. Which sentence from paragraph 2 best supports the idea that sheer “leather-headedness” (paragraph 2) amounts to “ignorance” and “idiocy” (paragraph 4)?
- A. “He goes out foraging, he makes a capture, and then what does he do?”
 - B. “He lifts it bodily up in the air by main force,”
 - C. “When he gets up there he finds that that is not the place;”
 - D. “Now he wipes the sweat from his brow, strokes his limbs, and then marches aimlessly off, in as violent a hurry as ever.”
22. How does the presence of the friend in paragraph 3 influence the first ant’s behavior?
- E. The friend distracts the ant from finding the correct path home.
 - F. The friend inspires the ant to consider a new approach to the situation.
 - G. The friend encourages the ant to continue his worthless efforts.
 - H. The friend tries to prevent the ant from finishing his task.

23. Which of the following best explains the author’s fascination with the ants?
- A. “During many summers now I have watched him, when I ought to have been in better business, and I have not yet come across a living ant that seemed to have any more sense than a dead one.” (paragraph 1)
 - B. “I admit his industry, of course; he is the hardest working creature in the world—” (paragraph 2)
 - C. “Science has recently discovered that the ant does not lay up anything for winter use.” (paragraph 4)
 - D. “It is strange beyond comprehension that so manifest a humbug as the ant has been able to fool so many nations and keep it up so many ages without being found out.” (paragraph 4)

24. Read this sentence from paragraph 3.

Evidently the friend remarks that a last year’s grasshopper leg is a very noble acquisition, and inquires where he got it.

Which statement best describes how the sentence fits into the overall structure of the excerpt?

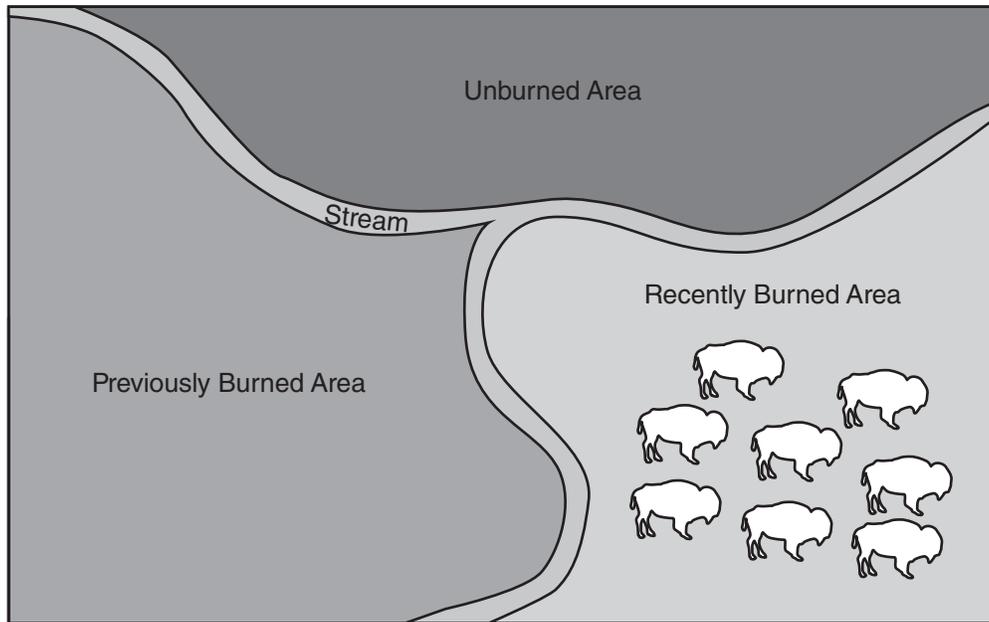
- E. It indicates a shift to the realization that the ants place great importance on an item that has little value.
 - F. It emphasizes a shift from an analysis of the actions of the individual ant to an interpretation of the interaction between ants.
 - G. It introduces a transition to the idea that specific observations about one ant allow for generalizations about all ants.
 - H. It provides a transition to the observation that the ant’s friend is just as purposeful in his efforts toward a futile ending as the first ant is.
25. The central idea that “the average ant is a sham” (paragraph 1) is conveyed mainly through the
- A. comical descriptions of the inability of the ants to accomplish the task at hand.
 - B. comparison between ants from other countries and the ants being observed.
 - C. keen observations that the level of intelligence of ants is mostly overstated.
 - D. conclusion that ants value objects that are of little practical use to them.

Using Fire to Keep a Prairie Healthy

- 1 Inside the 40,000-acre Joseph H. Williams Tallgrass Prairie Preserve in northern Oklahoma, herds of bison roam on the scenic land that is home to hundreds of different species of plants and animals. While one of the greatest threats to the prairie is wildfire, the use of controlled fires is actually an effective way to protect this idyllic landscape.
- 2 Fires that are started by lightning or other natural circumstances are inevitable, and the results can be disastrous. However, hundreds of years ago the American Indian people who inhabited the Great Plains area between Minnesota and Texas realized that these fires could also be helpful. The bison in the area seemed to prefer grazing on tender new grass on the recently burned land rather than on grass in the unburned areas. The American Indian people began to deliberately burn areas of land for bison to graze on, which enticed the herds away from the people's crops.
- 3 Today conservationists at the Tallgrass Prairie Preserve and farmers in the Great Plains continue to use controlled burns for land management. Intentionally burning a portion of land can dramatically improve the quality of the vegetation that regrows there. The fires burn away weedy undergrowth and help limit the overcrowding of shrubs and trees in the burn area, creating less competition for water and nutrients. Additionally, the process of burning excess plant matter adds nitrogen, an essential element for plant growth, to the soil.
- 4 One common target of controlled burns at the preserve and the surrounding area is the invasive red cedar tree. A single red cedar tree can consume up to 40 gallons of water per day, taking this vital resource away from other plant life. These tall trees also cast shade that prevents sunlight from reaching the plants beneath them. The fast-growing red cedar trees tend to crowd out prairie grasses, the primary food source for wild and domestic animals that make the prairie their home. An imbalance in one component of the prairie's ecosystem affects the entire web of life. Controlled burns help maintain this ecosystem's delicate balance.
- 5 Of course, these controlled fires are intended to burn only a portion of an area. A total burn, which is a risk with an uncontrolled wildfire, would destroy all wildlife as well as the crops farmers plant for income. The key to using controlled fires is knowing which areas of land to burn and when. Conservation experts at the preserve employ the "patch-burn" approach, meaning they rotate which portion of land is burned each year. They study the land to find out which areas would most benefit from being burned, and then they arrange about a dozen burns over one-third of the land. This patch burning contains the fire within a specific area and allows animals in the burn area to safely relocate. The following year, conservationists will burn a different section of the preserve, while the land burned the previous year regrows healthier than before.
- 6 Researchers have tracked and studied the variety of plant species and animals that live on the preserve, and their studies show that the patch-burn approach has restored biodiversity to the area by promoting the growth of species that were at risk of being crowded out. The patch-burn system is so successful that the conservationists at the preserve provide training to prairie farmers about conducting controlled burns on their own land. Burning land to make it healthy may seem counterintuitive, but strategic controlled fires have helped the prairie sustain life for hundreds of years and, with careful management, will continue to do so.

OVERVIEW OF THE PATCH-BURN METHOD

By using a patch-burn method, conservationists and farmers can reduce the risk of unintentional fires and control where grazing animals, such as bison, roam.



The **unburned area** is overrun with weeds and has the greatest risk of catching fire.

The **previously burned area** is cleared of weeds, and young trees and crops grow freely and thrive.

The **recently burned area** has been cleared of all plants. Bison prefer to eat the fresh grass that will begin to grow in the recently burned area, and they will generally remain in that area until newer, fresher grass is available elsewhere.

26. According to the passage, how did fires started by natural causes prompt American Indians to begin practicing controlled burns?
- E. by drawing animals in to the area to feed on the new growth sprouting from the burned land
 - F. by destroying tall trees and reducing the shade that had hindered the growth of planted crops
 - G. by burning off excess vegetation and increasing the availability of nutrients for the remaining plants
 - H. by causing changes to the bison's migration habits as bison herds fled from the wildfires on the prairie
27. Targeting red cedar trees in controlled burns affects the animals that live on the prairie mostly by
- A. ensuring that the animals' main food source has the conditions needed for it to thrive.
 - B. endangering the animals that live near the trees scheduled for removal.
 - C. making sure that the water supply for the animals is sufficient.
 - D. reducing the animals' natural source of shade and protection from the elements.

28. Read this sentence from paragraph 6.

The patch-burn system is so successful that the conservationists at the preserve provide training to prairie farmers about conducting controlled burns on their own land.

The author includes this sentence to show that

- E. the conservationists are better qualified to lead preservation efforts than farmers are.
- F. the conservationists are eager to involve others in the preservation of the prairie.
- G. the conservationists' efforts will restore the original beauty and biodiversity of the region.
- H. the conservationists' training program should serve as a model for other conservation organizations.

29. Which details from the passage best convey the central idea that using the patch-burn method is an effective way to protect and manage prairie land?
- A. the explanation that conservationists use the alternating burn pattern of the patch-burn method in order to allow the animals in the area to avoid the fire
 - B. the information that conservationists evaluate which land would most benefit from a controlled burn before applying the patch-burn method
 - C. the information that conservationists have determined that the patch-burn method has promoted the growth of species that were at risk of being crowded out
 - D. the explanation that conservationists are able to control the fire in the patch-burn method by arranging separate burns across the designated portion of land
30. Which sentence supports the idea that farmers and people who manage land may be concerned about using fire as a way to benefit the land?
- E. "While one of the greatest threats to the prairie is wildfire, the use of controlled fires is actually an effective way to protect this idyllic landscape." (paragraph 1)
 - F. "The American Indian people began to deliberately burn areas of land for bison to graze on, which enticed the herds away from the people's crops." (paragraph 2)
 - G. "This patch burning contains the fire within a specific area and allows animals in the burn area to safely relocate." (paragraph 5)
 - H. "The following year, conservationists will burn a different section of the preserve, while the land burned the previous year regrows healthier than before." (paragraph 5)
31. Read this sentence from paragraph 6.

Burning land to make it healthy may seem counterintuitive, but strategic controlled fires have helped the prairie sustain life for hundreds of years and, with careful management, will continue to do so.

The words "counterintuitive" and "strategic" in the sentence convey the idea that

- A. the safest methods are sometimes the least effective at solving complex challenges.
- B. thorough investigation of uncommon methodologies can lead to beneficial results.
- C. detailed planning can ensure that a potentially destructive action has a positive impact.
- D. plans that entail a certain amount of risk almost always result in success.

- 32.** With which statement would the author most likely agree?
- E.** It is important to explain the purposes and the risks of controlled burns to the people living near a proposed burn area.
 - F.** It is necessary to thoroughly examine a particular region in order to plan and execute a successful controlled burn.
 - G.** Monitoring animals' reactions after a controlled burn on the prairie is a minor part of scientists' research.
 - H.** Conservationists should consider the helpful aspects of invasive species before executing a controlled burn.
- 33.** How do the diagram and its text provide additional support for the topic presented in the passage?
- A.** by depicting how the landscape in a given area changes as the patch-burn method is applied
 - B.** by indicating that patch-burn fires are best suited for use in areas with certain features
 - C.** by revealing that the patch-burn method is used primarily on uninhabited areas of land
 - D.** by comparing the size of the area burned by the patch-burn method with that of unburned areas

CONTINUE TO THE NEXT PAGE ►

Cross-Purposes

What I am is *built*: concrete and steel.
I defy gravity. I am what every athlete
wants: to remain at the apex of the leap,
up in the air. And yet I am useful, too:
5 cars, trucks, people, even trains
make their way across my broad back.
Swallows and ospreys¹ nest in my trusses.

*What I am is motion. I am water, and I am older
than anything else you know. No human
10 built me. I am gravity's best friend; I pool
and flow wherever gravity takes me.
I am the blood flowing in the runner's chest,
and I catch everything: from the hills,
the mountains. It all washes down through me.*

15 What you are is an *accident*,
what happens to rain when rain gives in
to Earth's gravitational pull.
You are some tears dribbling from a mountain's
eye, running down the pavements
20 of small towns, into the cities, to the sea.
You are the path of least resistance.

*What I am is power. You, of course,
have none: you are a static lump, an artifact
slowly decaying. But my regal flow
25 nourishes grasses, permits empires to rise.
Those who made you will break you,
in time, replacing you with yet another
clumsy structure. I have seen. I know.*

"Clumsy"? Being rebuilt makes me
30 a friend of time, does it not? And it means
that I have siblings—those "clumsy" structures,
my sisters and brothers.
We stitch across the rip you make.
We are steel thread to the human needle.
35 We bind you up. We sew you.

*And I sow into you; in every cranny
of your superstructure my vapors cling.
They bring out your softness, your rust.*

¹**ospreys:** large birds

*Boast your best, and boast better yet.
40 I am listening to the bright hum
of the wind in your wires. Because I am,
above all else, patient. I will wait for you.*

- 34.** How does the similar construction of the sentence in line 1 and the sentence in line 8 contribute to the meaning of the poem?
- E.** It introduces the intended permanence of the structure and the ever-changing fluidity of the water.
 - F.** It shows that the structure can bridge the gap caused by the water.
 - G.** It suggests that the inflexible structure has more limitations than the adaptable water does.
 - H.** It contrasts the stability of the structure with the instability of the water.
- 35.** Read lines 2–4 and lines 12–14 from the poem.

**I am what every athlete
wants: to remain at the apex of the leap,
up in the air.**

***I am the blood flowing in the runner's chest,
and I catch everything: from the hills,
the mountains.***

How do the lines contribute to the development of a central idea of the poem?

- A.** They establish that both the structure and the water have endurance and control.
 - B.** They highlight that both the structure and the water are powerful and impressive.
 - C.** They suggest that the structure and the water are unaware of how similar they are.
 - D.** They reveal that the structure and the water are surprised that they are interrelated.
- 36.** The use of the words “siblings” and “my sisters and brothers” in lines 31–32 conveys the idea that the
- E.** forms water can take are less diverse than the types of structures that exist.
 - F.** number of human-made structures is rapidly increasing.
 - G.** water passes under many similar-looking structures as it flows.
 - H.** structure is powerful because it is one of many.

37. The comparison to sewing in lines 33–35 helps show that the structure
- A. enhances the beauty of the natural landscape.
 - B. brings people together more effectively than nature does.
 - C. provides clear boundaries for natural environments.
 - D. serves as a means for people to overcome an obstacle created by nature.
38. The last stanza (lines 36–42) conveys a central idea of the poem by
- E. demonstrating that both the structure and the water depend on each other to fulfill their functions.
 - F. implying that a stronger structure would be able to resist the degradation caused by the water.
 - G. revealing that the passage of time will render both the structure and the water obsolete.
 - H. suggesting that the water will eventually weaken the structure and will continue to exist after the structure is gone.
39. Read lines 41–42 from the poem.

***Because I am,
above all else, patient. I will wait for you.***

Which of the following supports what is implied in these lines?

- A. *"I am older / than anything else you know."* (lines 8–9)
- B. *"No human / built me."* (lines 9–10)
- C. *"It all washes down through me."* (line 14)
- D. *"Those who made you will break you,"* (line 26)

- 40.** How does the poet develop the points of view of the structure and the water?
- E.** by giving an account of a discussion between them about the future of human civilization
 - F.** by narrating a debate they have over their impact on the environment
 - G.** by illustrating the unique power they each possess over nature
 - H.** by using personification to allow them to debate who is more important
- 41.** How does the form of the poem contribute to its meaning?
- A.** The use of an equal number of lines in each stanza emphasizes that both speakers are equally important.
 - B.** The use of italics in some of the stanzas indicates the increasing tension between the structure and the water.
 - C.** The alternating positions of the stanzas highlight the opposing points of view of the speakers.
 - D.** The lack of a regular rhyme scheme or meter reflects the way the water changes the structure and the way the water itself changes.

Zitkala-Sa (Gertrude Simmons Bonnin) was a Native American writer, musician, teacher, and political activist who was raised on the Yankton Sioux Reservation in South Dakota. In 1900 she published "Impressions of an Indian Childhood" (the term Indian was commonly used at the time to refer to Native American people) to expose readers to what life is like on a reservation.

Excerpt from "Impressions of an Indian Childhood"

by Zitkala-Sa

- 1 Soon after breakfast Mother sometimes began her beadwork. On a bright, clear day, she pulled out the wooden pegs that pinned the skirt of our wigwam¹ to the ground, and rolled the canvas part way up on its frame of slender poles. Then the cool morning breezes swept freely through our dwelling, now and then wafting the perfume of sweet grasses from newly burnt prairie.
- 2 Untying the long tasseled strings that bound a small brown buckskin² bag, my mother spread upon a mat beside her bunches of colored beads, just as an artist arranges the paints upon his palette. On a lapboard she smoothed out a double sheet of soft white buckskin; and drawing from a beaded case that hung on the left of her wide belt a long, narrow blade, she trimmed the buckskin into shape. Often she worked upon small moccasins for her small daughter. Then I became intensely interested in her designing. With a proud, beaming face, I watched her work. In [my] imagination, I saw myself walking in a new pair of snugly fitting moccasins. I felt the envious eyes of my playmates upon the pretty red beads decorating my feet.
- 3 Close beside my mother I sat on a rug, with a scrap of buckskin in one hand and an awl in the other. This was the beginning of my practical observation lessons in the art of beadwork. From a skein³ of finely twisted threads of silvery sinews my mother pulled out a single one. With an awl she pierced the buckskin, and skillfully threaded it with the white sinew. Picking up the tiny beads one by one, she strung them with the point of her thread, always twisting it carefully after every stitch.
- 4 It took many trials before I learned how to knot my sinew thread on the point of my finger, as I saw her do. Then the next difficulty was in keeping my thread stiffly twisted, so that I could easily string my beads upon it. My mother required of me original designs for my lessons in beading. At first I frequently ensnared many a sunny hour into working a long design. Soon I learned from self-inflicted punishment to refrain from drawing complex patterns, for I had to finish whatever I began.
- 5 After some experience I usually drew easy and simple crosses and squares. These were some of the set forms. My original designs were not always symmetrical nor sufficiently characteristic, two faults with which my mother had little patience. The quietness of her oversight made me feel strongly responsible and dependent upon my own judgment. She treated me as a dignified little individual as long as I was on my good behavior; and how humiliated I was when some boldness of mine drew forth a rebuke from her!

¹**wigwam:** hut with an arched framework of poles covered with bark, mats, or animal hides

²**buckskin:** leather made from the skin of a male deer

³**skein:** coiled length of yarn or other thread loosely wound on a reel

- 6 In the choice of colors she left me to my own taste. I was pleased with an outline of yellow upon a background of dark blue, or a combination of red and myrtle-green. There was another of red with a bluish-gray that was more conventionally used. When I became a little familiar with designing and the various pleasing combinations of color, a harder lesson was given me. It was the sewing on, instead of beads, some tinted porcupine quills, moistened and flattened between the nails of the thumb and forefinger. My mother cut off the prickly ends and burned them at once in the centre fire. These sharp points were poisonous, and worked into the flesh wherever they lodged. For this reason, my mother said, I should not do much alone in quills until I was as tall as my cousin Warca-Ziwin.
- 7 Always after these confining lessons I was wild with surplus spirits, and found joyous relief in running loose in the open again. Many a summer afternoon a party of four or five of my playmates roamed over the hills with me. We each carried a light sharpened rod about four feet long, with which we pried up certain sweet roots. When we had eaten all the choice roots we chanced upon, we shouldered our rods and strayed off into patches of a stalky plant under whose yellow blossoms we found little crystal drops of gum. Drop by drop we gathered this nature's rock-candy, until each of us could boast of a lump the size of a small bird's egg. Soon satiated with its woody flavor, we tossed away our gum, to return again to the sweet roots.

From "Impressions of an Indian Childhood" by Zitkala-Sa—Public Domain

A BRIEF HISTORY OF BEADWORK IN SOUTH DAKOTA

Date	Event
1500s	The Dakota use beads made from bones, shells, stones, and animal teeth. European traders bring glass beads to North America.
Late 1600s	The Dakota begin trading with the French in Minnesota.
1830s	The Dakota begin using glass beads in clothing, artwork, and decorations in place of Native-made beads.
1862–1865	The Dakota are expelled from their homelands in Minnesota as a result of the U.S.-Dakota War.
1900s–1920s	The Dakota create items to sell outside their community.

Source: MNopedia

- 42.** In paragraph 1, the phrases “cool morning breezes swept freely” and “wafting the perfume of sweet grasses” affect the tone of the excerpt by suggesting
- E.** the sadness that the author feels reflecting upon her former way of life.
 - F.** the enthusiasm with which the author approached her work indoors.
 - G.** the fond feelings that the author has toward her childhood experiences.
 - H.** the mix of emotions that the author feels toward her work and her mother.
- 43.** The phrase “just as an artist arranges the paints upon his palette” in paragraph 2 suggests that
- A.** beadwork is a true form of art.
 - B.** color is a source of artistic inspiration.
 - C.** all artistic activities begin with a series of steps.
 - D.** the beadworker tries to imitate art.
- 44.** The author’s use of sequence in paragraphs 1 and 2 contributes to the development of ideas in the excerpt by
- E.** listing the many steps that are involved in the process of beading in order to explain its difficulty and complexity.
 - F.** conveying the importance of following the steps of the beading process in a precise order to work most efficiently.
 - G.** emphasizing the time required to fully prepare for and execute the many large and small tasks in the activity of beading.
 - H.** detailing each step in preparation for beading in order to highlight the author’s enthusiasm for the work.
- 45.** The details in paragraph 3 convey a central idea of the excerpt by suggesting that
- A.** the author was interested in the work because she knew her mother was making something for her.
 - B.** the author had difficulty learning through observation but wanted to help her mother.
 - C.** the author was determined to behave according to her mother’s standards and sought her approval.
 - D.** the author had great admiration for her mother’s precision and mastery of her craft.

- 46.** Which sentence best summarizes the process of beading that is described in the excerpt?
- E.** Take a buckskin bag full of beads and spread them out on a mat in different colors like a paint palette; take a double sheet of buckskin and smooth it out on a table; take a sinew and awl and thread the beads onto the buckskin in a desired pattern.
 - F.** Cut the double sheet of buckskin into a shape; take a skein of sinew and pierce the buckskin with an awl; thread the sinew with beads of many different colors in a simple or complex pattern; twist the sinew to keep it tight after every stitch into the buckskin.
 - G.** Arrange the beads into groups of colors on a mat; smooth out a double sheet of buckskin and cut it to shape; take a single thread of sinew; pierce the buckskin with an awl; thread the buckskin with the sinew and string it with beads, carefully twisting after every stitch.
 - H.** Gather beads, buckskin, sinew, and awl and place them on a mat; cut the buckskin into the desired shape; decide on a pattern for the beads and create it using the sinews and the awl; thread the beads onto the sinew in the desired pattern and twist it tight.
- 47.** The idea that mastering moccasin design and creation requires experience is best illustrated in the excerpt through
- A.** the information about the advanced technique of incorporating porcupine quills into a design.
 - B.** the descriptions of the special materials that must be used to make decorated moccasins.
 - C.** the descriptions of the various color combinations that make an attractive moccasin design.
 - D.** the example of the author successfully and independently using a sharpened rod.
- 48.** How does the author distinguish her point of view from that of her mother?
- E.** by describing their techniques for knotting sinew thread (paragraph 4)
 - F.** by describing their approaches to beadwork design (paragraph 5)
 - G.** by stating her mother’s instructions on working with quills (paragraph 6)
 - H.** by stating her mother’s ideas about activities after lessons (paragraph 7)

49. Read this sentence from paragraph 7.

Always after these confining lessons I was wild with surplus spirits, and found joyous relief in running loose in the open again.

Which sentence best describes how this sentence fits into the overall structure of the excerpt?

- A. It introduces a shift from the author’s demanding relationship with her mother to her more relaxed relationships with friends.
 - B. It signals a change from the challenging aspects of life on the reservation to the advantages of living on the prairie.
 - C. It highlights a contrast between the focus and control required while working and the freedom of having fun outside.
 - D. It concludes the progression of events in the narrative by describing the sequence of events at the end of the author’s day.
50. The table after paragraph 7 expands upon a central idea in the excerpt because it shows that
- E. the craft that the author was learning was a tradition that endured through many generations and changes.
 - F. the author’s family incorporated traditional materials into their craft as a way of resisting the influence from European traders.
 - G. the uniqueness of the cultural tradition that the author learned as a child was eventually recognized in Europe.
 - H. the author was able to incorporate color into her craftwork as a result of trade with other peoples.

CONTINUE TO THE NEXT PAGE ►

Excerpt from "Niagara Falls"

by Rupert Brooke

- 1 The real secret of the beauty and terror of the Falls is not their height or width, but the feeling of colossal power and of unintelligible disaster caused by the plunge of that vast body of water. If that were taken away, there would be little visible change, but the heart would be gone.
- 2 The American Falls do not inspire this feeling in the same way as the Canadian. It is because they are less in volume, and because the water does not fall so much into one place. By comparison their beauty is almost delicate and fragile. They are extraordinarily level, one long curtain of lacework and woven foam. Seen from opposite, when the sun is on them, they are blindingly white, and the clouds of spray show dark against them. With both Falls the colour of the water is the ever-altering wonder. Greens and blues, purples and whites, melt into one another, fade, and come again, and change with the changing sun. Sometimes they are as richly diaphanous¹ as a precious stone, and glow from within with a deep, inexplicable light. Sometimes the white intricacies of dropping foam become opaque and creamy. And always there are the rainbows. If you come suddenly upon the Falls from above, a great double rainbow, very vivid, spanning the extent of spray from top to bottom, is the first thing you see. If you wander along the cliff opposite, a bow springs into being in the American Falls, accompanies you courteously on your walk, dwindles and dies as the mist ends, and awakens again as you reach the Canadian tumult. And the bold traveller who attempts the trip under the American Falls sees, when he dare open his eyes to anything, tiny baby rainbows, some four or five yards in span, leaping from rock to rock among the foam, and gambolling beside him, barely out of hand's reach, as he goes. One I saw in that place was a complete circle, such as I have never seen before, and so near that I could put my foot on it. It is a terrifying journey, beneath and behind the Falls. The senses are battered and bewildered by the thunder of the water and the assault of wind and spray; or rather, the sound is not of falling water, but merely of falling; a noise of unspecified ruin. So, if you are close behind the endless clamour, the sight cannot recognise liquid in the masses that hurl past. You are dimly and pitifully aware that sheets of light and darkness are falling in great curves in front of you. Dull omnipresent foam washes the face. Farther away, in the roar and hissing, clouds of spray seem literally to slide down some invisible plane of air.
- 3 Beyond the foot of the Falls the river is like a slipping floor of marble, green with veins of dirty white, made by the scum that was foam. It slides very quietly and slowly down for a mile or two, sullenly exhausted. Then it turns to a dull sage green, and hurries more swiftly, smooth and ominous. As the walls of the ravine close in, trouble stirs, and the waters boil and eddy. These are the lower rapids, a sight more terrifying than the Falls, because less intelligible. Close in its bands of rock the river surges tumultuously forward, writhing and leaping as if inspired by a demon. It is pressed by the straits into a visibly convex form. Great planes of water slide past. Sometimes it is thrown up into a pinnacle of foam higher than a house, or leaps with incredible speed from the crest of one vast wave to another, along the shining curve between, like the spring of a wild beast. Its motion continually suggests muscular action. The power manifest in these rapids moves one with a different sense of awe and terror from that of the Falls. Here the inhuman life and strength are spontaneous, active, almost resolute. . . . A place of fear.

¹**diaphanous:** sheer, translucent

- 4 One is drawn back, strangely, to a contemplation of the Falls, at every hour, and especially by night, when the cloud of spray becomes an immense visible ghost, straining and wavering high above the river, white and pathetic and translucent. The Victorian lies very close below the surface in every man. There one can sit and let great cloudy thoughts of destiny and the passage of empires drift through the mind; for such dreams are at home by Niagara. I could not get out of my mind the thought of a friend, who said that the rainbows over the Falls were like the arts and beauty and goodness, with regard to the stream of life—caused by it, thrown upon its spray, but unable to stay or direct or affect it, and ceasing when it ceased. In all comparisons that rise in the heart, the river, with its multitudinous waves and its single current, likens itself to a life, whether of an individual or of a community. A man’s life is of many flashing moments, and yet one stream; a nation’s flows through all its citizens, and yet is more than they. In such places, one is aware, with an almost insupportable and yet comforting certitude, that both men and nations are hurried onwards to their ruin or ending as inevitably as this dark flood. Some go down to it unreluctant, and meet it, like the river, not without nobility. And as incessant, as inevitable, and as unavailing as the spray that hangs over the Falls, is the white cloud of human crying. . . . With some such thoughts does the platitudinous² heart win from the confusion and thunder of a Niagara peace that the quietest plains or most stable hills can never give.

From LETTERS FROM AMERICA by Rupert Brooke—Public Domain

²**platitudinous:** clichéd, common

51. The central idea that the Falls communicate a feeling of “unintelligible disaster” (paragraph 1) is conveyed in paragraph 2 through a description of
- A. the glow of the precious stones visible within the water.
 - B. the dynamic flow of the colors that are visible in the water.
 - C. the sudden appearance and disappearance of rainbows.
 - D. the sounds associated with a sense of falling.
52. Read this sentence from paragraph 2.

They are extraordinarily level, one long curtain of lacework and woven foam.

What is the effect of comparing the American Falls to a “long curtain of lacework and woven foam”?

- E. It demonstrates the timelessness of the American Falls.
- F. It conveys the secretive nature of the American Falls.
- G. It illustrates the elegant uniformity of the American Falls.
- H. It communicates the intense strength of the American Falls.

53. Read this sentence from paragraph 3.

These are the lower rapids, a sight more terrifying than the Falls, because less intelligible.

Which statement best describes how the sentence fits into the overall structure of the excerpt?

- A. It signals a change from the positive aspects of the Falls to the negative aspects.
- B. It indicates a progression from the literal description of the water to a discussion of timeless truths.
- C. It reinforces a shift from the qualities of the Falls to the qualities of the river.
- D. It introduces a contrast between the obvious and the hidden features of the rapids.

54. Which sentence from the excerpt best supports the idea that the essence of the Falls lies in their emotional impact?

- E. "If that were taken away, there would be little visible change, but the heart would be gone." (paragraph 1)
- F. "By comparison their beauty is almost delicate and fragile." (paragraph 2)
- G. "One is drawn back, strangely, to a contemplation of the Falls, at every hour, and especially by night, when the cloud of spray becomes an immense visible ghost, straining and wavering high above the river, white and pathetic and translucent." (paragraph 4)
- H. "A man's life is of many flashing moments, and yet one stream; a nation's flows through all its citizens, and yet is more than they." (paragraph 4)

55. Read this sentence from paragraph 4.

There one can sit and let great cloudy thoughts of destiny and the passage of empires drift through the mind; for such dreams are at home by Niagara.

The sentence most contributes to the development of ideas in the excerpt by

- A. suggesting that viewing the Falls can be a life-changing experience.
- B. showing that the cliffs of the Falls are a good place for self-examination.
- C. emphasizing that the grandeur of the Falls seems impossible to grasp.
- D. highlighting the type of reflection that is inspired by a visit to the Falls.

- 56.** In paragraph 4, the idea that human life and history travel toward the same ending is illustrated mainly through
- E.** the discussion of how the rainbows visible in the Falls are like the art and beauty created by humankind.
 - F.** the comparison between the movement of water in the Falls and the human experience.
 - G.** the inclusion of details that show that every observer’s experience with the Falls is different.
 - H.** the acknowledgment that contemplating the Falls at night sparks an awareness of humankind’s destiny.
- 57.** With which statement would the author of this excerpt most likely agree?
- A.** A sense of ease and assurance comes with accepting one’s fate.
 - B.** No matter where one’s path goes in life, one will always have regrets.
 - C.** The best way to overcome fear is to recognize it and then defy it.
 - D.** Reason will die out with humanity, but art will remain immortal.

PART 2 — MATHEMATICS

57 QUESTIONS

IMPORTANT NOTES

- (1) Formulas and definitions of mathematical terms and symbols are **not** provided.
 - (2) Diagrams other than graphs are **not** necessarily drawn to scale. Do not assume any relationship in a diagram unless it is specifically stated or can be determined from the information given.
 - (3) Assume that a diagram is in one plane unless the question specifically states that it is not.
 - (4) Graphs are drawn to scale. Unless stated otherwise, you can assume relationships according to appearance. For example, lines on a graph that appear to be parallel can be assumed to be parallel. This is also true for concurrent lines, straight lines, collinear points, right angles, etc.
 - (5) Reduce (simplify) all fractions to lowest terms.
-

CONTINUE TO THE NEXT PAGE ►

GRID-IN QUESTIONS

QUESTIONS 58–62

DIRECTIONS: Solve each problem. On the answer sheet, write your answer in the boxes at the top of the grid. Start on the left side of each grid. Print only one number or symbol in each box. Under each box, fill in the circle that matches the number or symbol you wrote above.

- Do not fill in a circle under an unused box.
- Do not leave a box blank in the middle of an answer.

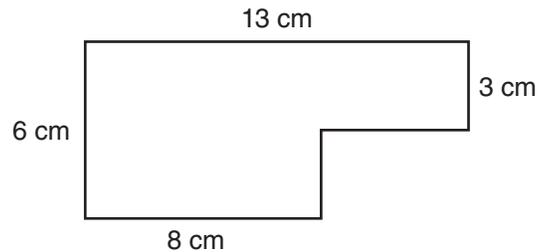
58.

$$\frac{3}{5}(2x + 5) - 2x$$

After the expression above is simplified, what is the coefficient of x expressed as a decimal?

59. Two number cubes have sides labeled 1 through 6. Both number cubes are rolled. How many different outcomes will have a sum of 6?

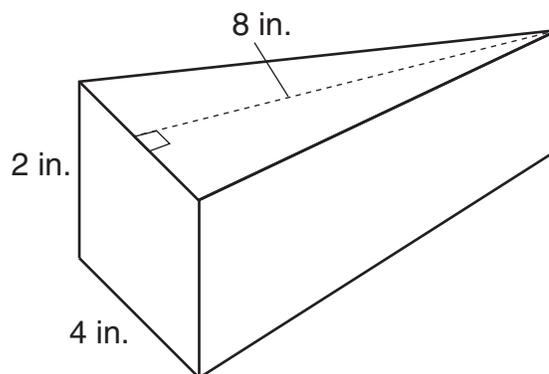
60.



The figure above shows a scale drawing of a garden, where 1 centimeter represents 2.5 meters. What is the perimeter of the actual garden in meters?

61. At one location, the temperature increased from -7° F to 4° F between 5:00 a.m. and 9:00 a.m. By 11:00 a.m., the temperature was 3.5 times **greater** than the 9:00 a.m. temperature. What was the total increase in temperature between 5:00 a.m. and 11:00 a.m., in degrees Fahrenheit?

62. The figure below is a triangular prism. The lateral sides are rectangles.



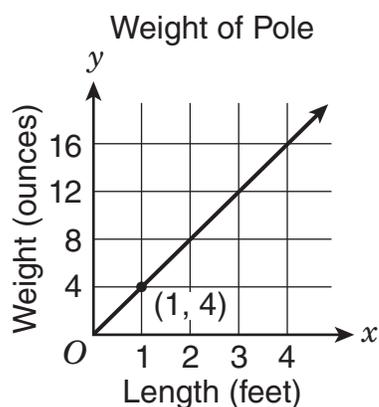
What is the volume of the figure, in cubic inches?

MULTIPLE CHOICE QUESTIONS

QUESTIONS 63–114

DIRECTIONS: Solve each problem. Select the best answer from the choices given. Mark the letter of your answer on the answer sheet. When you are solving problems, you can write in the test booklet or on the scrap paper given to you.

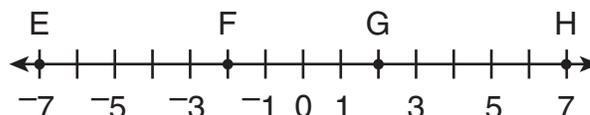
63. This graph shows y , the weight of a pole of length x .



What is represented by the point with coordinates $(1, 4)$?

- A. The unit rate is 4 ounces per foot.
- B. The y -intercept is 4.
- C. A pole 4 feet long weighs 1 ounce.
- D. The length increases 4 feet for each 1 ounce of weight.

64. The number line shows points E, F, G, and H.



Which point represents the sum of $2.5 + (-4.5)$?

- E. point E
- F. point F
- G. point G
- H. point H

65. If $\frac{9}{2x} = \frac{3y}{8}$, where $x \neq 0$ and $y \neq 0$, what is the product of x and y ?

- A. 4
- B. 6
- C. 12
- D. 16

66. A car dealership is having a sale where all cars have a 12% discount. What is the discounted price of a car that originally cost \$15,600?

- E. \$13,728
- F. \$14,300
- G. \$14,400
- H. \$15,588

67. $4\frac{2}{3} \div 2\frac{1}{2} =$

- A. $\frac{15}{28}$
- B. $1\frac{13}{15}$
- C. $2\frac{1}{3}$
- D. $3\frac{1}{3}$

68. In a sports league each team has 36 players and 3 coaches. There are also a number of team assistants. The ratio of team assistants to players is $\frac{1}{6}$. What is the ratio of coaches to assistants?

- E. $\frac{1}{4}$
- F. $\frac{1}{2}$
- G. $\frac{2}{3}$
- H. $\frac{5}{6}$

69. Lena is building a fence. She will need to dig holes to help support the posts that hold up the fence. The holes need to have a depth of $3\frac{1}{3}$ feet below the ground. Each post is 10 feet long. What is the height of the part of the post that is above the ground?

- A. $6\frac{2}{3}$ feet
- B. $7\frac{1}{3}$ feet
- C. 10 feet
- D. $13\frac{1}{3}$ feet

70.

$$p + 2r = r(p + 1) + 1$$

In the equation above, if $r = 2$, what is the value of p ?

- E.** 0
- F.** 1
- G.** 2
- H.** 3

71. Karen reads at the rate of 60 pages per day. Martina reads 25 percent more pages per day than Karen. If the two students begin 1,500-page reading assignments on the same day, how many days sooner will Martina complete the assignment than Karen?

- A.** 4
- B.** 5
- C.** 7
- D.** 15

72. Claire is running on a circular track. She has already run 650 meters. Each lap around the track is a distance of 120 meters. Her goal is to run at least 2,500 meters in all. How many more laps does she need to complete in order to reach her goal?

- E.** 5
- F.** 6
- G.** 15
- H.** 16

73. A company with 200 employees grew in size by 25% between 2005 and 2010. The company grew again by 10% between 2010 and 2015. What was the total number of employees in 2015?

- A.** 235
- B.** 260
- C.** 270
- D.** 275

74. A bowl contains 12 green candies, 4 yellow candies, and some red candies. The probability of choosing a green candy at random is twice as great as the probability of choosing a red candy at random. What is the probability of choosing a yellow candy at random?

- E. $\frac{2}{11}$
- F. $\frac{2}{9}$
- G. $\frac{1}{4}$
- H. $\frac{3}{11}$

75. A seller at an Internet site reports that 99.7% of his sales have resulted in satisfied customers. Based on the report, what fraction of the sales have resulted in unsatisfied customers?

- A. $\frac{1}{997}$
- B. $\frac{3}{1,000}$
- C. $\frac{3}{997}$
- D. $\frac{1}{300}$

76. Serena was studying the number of water stations for different lengths of races. The table below shows the data she collected.

WATER STATIONS IN RACES

Length of Race (mi)	Number of Water Stations
3	2
12	8
18	12

Which equation represents the relationship between the length of the race, x miles, and the number of water stations, y ?

- E. $y = \frac{2}{3}x$
- F. $y = \frac{3}{2}x$
- G. $y = x + 6$
- H. $y = x - 1$

77. Centerville will hold a vote on whether to build a new park. The town council surveyed a random sample of 200 residents to determine whether they would be in favor of building this park. The table shows the results of the survey.

SURVEY RESULTS

Opinion	Number of Residents
Yes	142
No	38
Undecided	20

The mayor estimates that half the undecided voters will vote in favor of building the park. Based on the survey results, if the mayor is correct, how many of the 24,100 voters will be in favor of building the park?

- A. 17,111
- B. 18,316
- C. 19,401
- D. 19,521

78. $-\frac{1}{49}, -49, -\frac{1}{7}, -1$

Which number shown above is the **greatest**?

- E. $-\frac{1}{49}$
- F. -49
- G. $-\frac{1}{7}$
- H. -1

79. What decimal is equivalent to $\frac{13}{-11}$?

- A. -1.18
- B. $-1.\overline{118}$
- C. $-1.\overline{18}$
- D. $-1.\overline{81}$

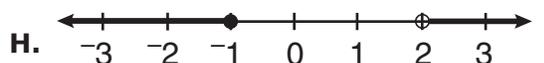
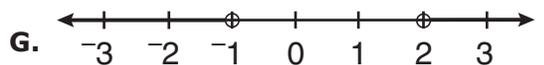
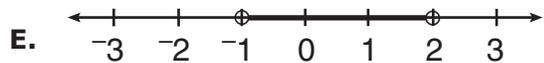
80. Each loaf of bread a baker makes requires $\frac{1}{5}$ ounce of salt. How many loaves can be made if 40 ounces of salt are used?

- E. 8
- F. 20
- G. 45
- H. 200

81. What is the value of $\frac{\left(1\frac{5}{7} - 1\frac{6}{7}\right)}{\left(3\frac{4}{7} - 3\frac{6}{7}\right)}$?

- A. $-\frac{1}{2}$
- B. $-\frac{1}{7}$
- C. $\frac{1}{7}$
- D. $\frac{1}{2}$

82. Which number line represents the values of x that satisfy the inequality $-5 \leq 1 - 3x \leq 4$?



83. If 1 sind = 0.75 plunks, how many sinds are equivalent to 8 plunks, rounded to the nearest hundredth?

- A. 1.33
- B. 6.00
- C. 7.25
- D. 10.67

84. Simplify:

$$8x - (7 + 2.5x) + 2$$

- E. $5.5x - 9$
- F. $5.5x - 5$
- G. $10.5x - 9$
- H. $10.5x - 5$

85. Kim can repair 3 bicycles every 4 hours. At this rate, how long will it take her to repair 5 bicycles?

- A. 6 hr
- B. 6 hr 40 min
- C. 6 hr 45 min
- D. 7 hr 15 min

86. Jar Q contains 12 balls, and Jar R contains 8 balls. The probability of drawing a yellow ball at random from Jar Q is $\frac{1}{3}$. The probability of drawing a yellow ball at random from Jar R is $\frac{3}{4}$. All the balls are poured into an empty jar, Jar S. What is the probability of drawing a yellow ball at random from Jar S?

- E. $\frac{1}{4}$
- F. $\frac{1}{3}$
- G. $\frac{1}{2}$
- H. $\frac{4}{7}$

87.

GIA'S BAG OF SNACK MIX

Snack	Number in Bag
Pretzels	12
Raisins	9

Gia and her friends counted the numbers of pretzels and raisins in their bags of snack mix. The table above shows the numbers in Gia's bag. Which other snack mix bag has a ratio of pretzels to raisins in the same proportional relationship as Gia's bag?

A. ADELE'S BAG OF SNACK MIX

Snack	Number in Bag
Pretzels	6
Raisins	18

B. CARL'S BAG OF SNACK MIX

Snack	Number in Bag
Pretzels	15
Raisins	12

C. ISABEL'S BAG OF SNACK MIX

Snack	Number in Bag
Pretzels	18
Raisins	15

D. TREVON'S BAG OF SNACK MIX

Snack	Number in Bag
Pretzels	16
Raisins	12

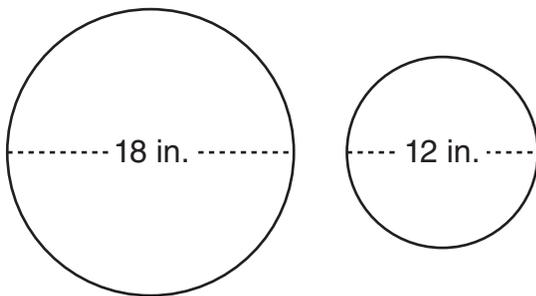
88. If $y = 4x$, what is the value of $3y + 2(3y + 5) - x$ in terms of x ?

- E. $8x + 10$
- F. $32x + 10$
- G. $35x + 10$
- H. $36x + 10$

90. If $x = -4$, what is the sum of x and 10% of $|x|$?

- E. -4.4
- F. -3.6
- G. 0.4
- H. 4.4

89. Two circular plates have the dimensions shown.



What is the difference between the areas of the two plates, in square inches?

- A. 6π
- B. 9π
- C. 45π
- D. 180π

91. The volume of a cube is 512 cubic centimeters. What is the length, in centimeters, of **one** side of this cube?

- A. 8
- B. $42\frac{2}{3}$
- C. $85\frac{1}{3}$
- D. 128

92. The high temperature on Monday was x° F. On Tuesday, the high temperature was 84° F, which was a 5% increase from Monday's high temperature. On Wednesday, the high temperature was 10% lower than it was on Monday. How much lower was the high temperature on Wednesday than the high temperature on Monday?

- E.** 4.0° F
- F.** 8.0° F
- G.** 8.4° F
- H.** 8.8° F

93. The integers $(n - 1)$, n , and $(n + 1)$ are factors of 168. What is the **greatest** possible value of n ?

- A.** 3
- B.** 7
- C.** 14
- D.** 84

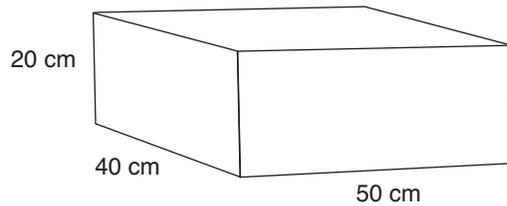
94. Raoul gave two musical performances. His second performance occurred 86 days after his first performance. If Raoul's second performance was on a Tuesday, on what day of the week was his first performance?

- E.** Sunday
- F.** Monday
- G.** Wednesday
- H.** Thursday

95. Michael received a check for \$213 for working 20 hours at his part-time job. The amount on the check was his total pay after \$32 in taxes was deducted. What was Michael's hourly pay rate before taxes were deducted?

- A.** \$9.05
- B.** \$10.65
- C.** \$12.25
- D.** \$21.35

96.



What is the total surface area, in square centimeters, of the closed box shown above?

- E. 3,800
- F. 5,600
- G. 7,600
- H. 40,000

97. The value of a particular car decreases at a constant rate. If the car is worth \$15,000 three years after its original purchase date and \$10,000 five years after its original purchase date, what was the value of the car on its original purchase date?

- A. \$18,000
- B. \$20,000
- C. \$22,500
- D. \$25,000

98. A bag contains 2 green, 4 blue, and 3 yellow disks. Alana selects 4 disks from the bag at random, one at a time, without replacing them. What is the probability that she selects all 4 blue disks?

- E. $\frac{8}{2,187}$
- F. $\frac{1}{126}$
- G. $\frac{256}{6,561}$
- H. $\frac{16}{9}$

99. Jevon earns $\frac{1}{2}\%$ per year on the money in his savings account. Which expression is **not** another way to write $\frac{1}{2}\%$?

- A. $\frac{0.005}{100}$
- B. $\frac{1}{2}$
- C. $\frac{5}{1,000}$
- D. $\frac{1}{200}$

100. A community garden had 50 members in 2001. In each of the next three years, the number of members increased by 40% over the number of members from the previous year. How many members were there in 2004? (Round to the nearest whole number.)

- E.** 70
- F.** 98
- G.** 110
- H.** 137

101. Which inequality is equivalent to $6x - 20 < 5x - 2(5 - 3x)$?

- A.** $x < 16$
- B.** $x < \frac{5}{2}$
- C.** $x < -2$
- D.** $x > -2$

102. A box contains a total of 30 paper clips with colors in the ratio red:white:blue = 2:5:3. Suppose that one paper clip of each color is removed from the box and not replaced. What is the probability that the next paper clip chosen will be blue?

- E.** $\frac{5}{27}$
- F.** $\frac{2}{7}$
- G.** $\frac{8}{27}$
- H.** $\frac{3}{10}$

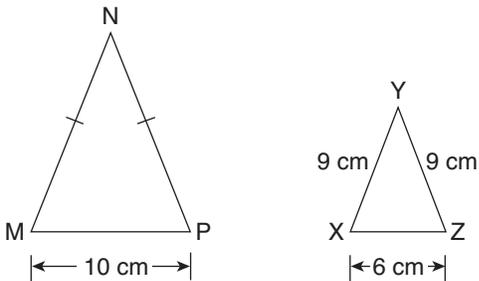
103. The least positive integer evenly divisible by the first 6 positive integers is 60. What is the least positive integer evenly divisible by the first 8 positive integers?

- A.** 1,680
- B.** 840
- C.** 480
- D.** 420

104. Three different colors of paint are available to paint the window frame, the door, and the wall of a house. If no two parts of the house may be painted the same color, how many different ways are there to paint the three parts of the house?

- E.** 3
- F.** 6
- G.** 9
- H.** 27

105.



Triangle MNP is similar to triangle XYZ, and $MN = NP$. What is the perimeter of triangle MNP?

- A.** 25 cm
- B.** 30 cm
- C.** 36 cm
- D.** 40 cm

106. Suppose that w , x , y , and z are integers, none of which are zero. Under which set of conditions would the product $x^2yz^3|w|$ **always** be positive?

- E.** x is positive and w is positive.
- F.** x is negative and w is negative.
- G.** y is negative and z is negative.
- H.** x and y are negative, and z and w are positive.

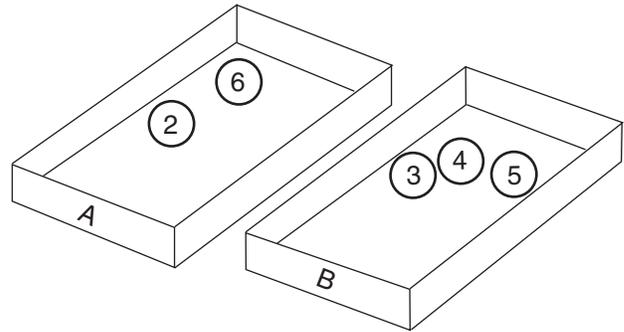
107. Chris has 1 red shirt, 2 white shirts, and 3 black shirts. Chris picks a shirt at random. Without putting the first shirt back, he picks a second shirt at random. What is the probability that the first shirt is black and the second shirt is red?

- A.** $\frac{1}{12}$
- B.** $\frac{1}{10}$
- C.** $\frac{1}{5}$
- D.** $\frac{7}{10}$

108. Rita used 125 small solid cubes to build a large solid cube. The measure of each edge of the small cubes equals 1 inch. What is the measure of each edge of the large cube, in inches?

- E.** 5
- F.** 25
- G.** 41.33
- H.** 125

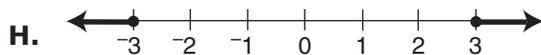
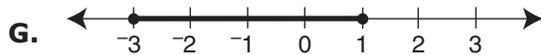
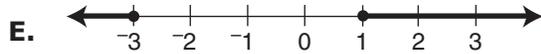
109.



Five numbered balls are placed in two boxes as shown in the figure above. Davina picks one ball at random from Box B and places it in Box A. Then Yusuf picks one ball from Box A without looking. What is the probability that Yusuf will pick a ball with an odd number?

- A.** $\frac{2}{9}$
- B.** $\frac{1}{3}$
- C.** $\frac{2}{5}$
- D.** $\frac{2}{3}$

110. Which graph represents the solution to $|x + 1| \geq 2$?



111. A rectangular kitchen floor is 12 feet long and 7.5 feet wide. It will be covered completely with new square tiles measuring 0.75 foot on each side. How many tiles will cover the floor?

- A.** 68
- B.** 78
- C.** 120
- D.** 160

112. Typically, an amusement park sells 3 times as many tickets on Sunday as on any weekday, and 4 times as many tickets on Saturday as on Sunday. If the number of tickets sold on Saturday and Sunday totaled 30,000, how many tickets are expected to be sold on the following Monday?

- E.** 2,000
- F.** 2,500
- G.** 3,000
- H.** 4,285

113. A rectangular field had a length of 80 meters and a width of 50 meters. The field was recently enlarged, with the length increased by 15% and the width increased by 10 meters. By what percentage was the area of the field increased?

- A.** 26.5%
- B.** 35%
- C.** 38%
- D.** 42.5%

114. If x and y are both negative integers with $x < y$, which expression has the **least** value?

- E.** x^2y
- F.** xy^2
- G.** $-x^2y$
- H.** $-xy^2$

THIS IS THE END OF THE TEST.
IF TIME REMAINS, YOU SHOULD CHECK
YOUR ANSWERS. BE SURE THAT THERE
ARE NO STRAY MARKS, PARTIALLY
FILLED ANSWER CIRCLES, OR
INCOMPLETE ERASURES ON YOUR
ANSWER SHEET. ■

REVISING/EDITING PART A

1. The question asks for the revision that corrects the error in sentence structure in the paragraph.
 - A. **CORRECT.** The first sentence of the paragraph is a run-on because both clauses—"The land on Earth has not always been separated into the seven continents" and "at one time a massive supercontinent, known as Pangaea, covered one-third of Earth's surface"—are independent clauses. Independent clauses are complete sentences, and two complete sentences should not be combined with just a comma. The revision is correct because it separates the two sentences by placing a period where it is needed after "continents" and by capitalizing the word "At."
 - B. Incorrect. While adding a semicolon after "surface" can be considered a correct way to separate the independent clauses "at one time a massive supercontinent, known as Pangaea, covered one-third of Earth's surface" and "Additionally, the supercontinent was surrounded by ocean waters called Panthalassa, much of which were in Earth's Southern Hemisphere," this change does not address the sentence structure error in the paragraph (the run-on sentence). The use of a period separating the independent clauses (complete sentences) is correct as is.
 - C. Incorrect. Adding a period after "Panthalassa" would separate the dependent clause "much of which were in Earth's Southern Hemisphere" from its subject: "ocean waters called Panthalassa." The dependent clause cannot stand on its own because it shares elements with the main clause. A dependent clause is not a complete sentence and must be joined with an independent clause. The clause beginning with "much of which" is an adjective for "ocean waters." Changing the comma to a period creates a new error (a sentence fragment) and does not address the existing sentence structure error at the beginning of the paragraph (the run-on sentence).
 - D. Incorrect. Removing the period after "crust" would create a run-on sentence because the period is needed to separate two complete sentences—"Geologists believe that the supercontinent split apart over millions of years because of the movement of the tectonic plates that form Earth's crust" and "In fact, experts predict that over the next 250 million years the movement of the plates will cause the seven continents to merge into a supercontinent again." A comma after "crust" would combine these sentences into a run-on, creating a new error in the sentence without fixing the existing sentence structure error (the run-on sentence) at the beginning of the paragraph.

2. The question asks for the identification of the sentence in the paragraph that has an error in its construction and should be revised.
- E. **CORRECT.** Sentence 1 contains a structural error. The sentence begins with a list of modifying phrases: "Walking dogs, cleaning kennels, hand-feeding newborn kittens, and supporting the pet-adoption process." As written, this list modifies the closest noun phrase, "the animal shelter," which is illogical because the list describes tasks at the animal shelter, not the shelter itself. The list should follow the word "tasks" at the end of the sentence, so that it is closer to the word that it modifies.
 - F. Incorrect. Sentence 2 does not contain structural errors. The phrase "especially those who aspire to care for and protect animals" in sentence 2 correctly modifies "young people."
 - G. Incorrect. Sentence 3 does not contain structural errors. The structure of sentence 3 allows the words "In addition to hands-on training with animal care" to correctly modify "volunteers will learn."
 - H. Incorrect. Sentence 4 does not contain structural errors. The phrase "which is the awareness and understanding of the feelings of others" in sentence 4 correctly modifies the word "empathy."
-

3. The question asks for the correction needed for an error in the sentence.
- A. Incorrect. When a name has more than one element, a comma is used to separate the elements for clarity.
 - B. **CORRECT.** The sentence needs a comma to set off the clause "which is considered one of the 'new' Seven Wonders of the World," because the clause is not essential to the meaning of the sentence (nonrestrictive clause). This option is correct because it places a comma where it is needed, after "Italy," to set off the nonrestrictive clause that follows.
 - C. Incorrect. This edit would remove the comma at the end of the nonrestrictive clause, which should be set off by commas at the beginning and the end.
 - D. Incorrect. A comma after "built" would separate the dependent clause "and once could hold up to 50,000 spectators" from the subject of the main clause. The dependent clause uses the subject from the main clause, so it must stay connected.
-

4. The question asks for the correct revision of the sentence in the box.
- E. Incorrect. The revisions do not fix the error that "to promote their club" modifies "a bake sale."
 - F. Incorrect. The revisions do not fix the error that "to promote their club" modifies "a bake sale."
 - G. **CORRECT.** The revision is correct because it includes the phrase "to promote their club" clearly modifying "members of the debate team."
 - H. Incorrect. While the revision clarifies that "to promote their club" relates to the "members of the debate team," the rest of the sentence is poorly written because the insertion of "on Wednesday to promote their club" in the middle of the sentence interrupts the main clause, "Members of the debate team will sponsor a bake sale."

REVISING/EDITING PART B

The Free College Debate

5. The question asks which sentence should replace sentence 3 to best state the topic of the passage.
- A. Incorrect. Although this sentence mentions that “several states have implemented scholarship programs,” it does not clearly introduce the topic of the passage, which is differing opinions about and approaches to solving the problem of the cost of college.
 - B. **CORRECT.** This sentence best replaces sentence 3 because it clearly states the topic of “determining the most effective way to make college affordable.” It also provides an introduction to the “differing opinions” of proponents, who believe that states should provide low-cost or free tuition, and opponents, who believe that such state programs are “unsustainable” (sentence 8).
 - C. Incorrect. This sentence mentions the role of higher-education institutions in helping “reduce the cost of a college education” for students, which is a idea discussed in sentences 14 and 15 in the passage. Although the sentence provides details to support the topic of the passage by referring to “ways to help students avoid paying for unnecessary classes and materials,” it does not state the topic, which is differing opinions about and approaches to solving the problem of the cost of college.
 - D. Incorrect. Even though this sentence mentions “college affordability,” it is primarily focused on a problem that is related to, but different from, the issue discussed in the passage. The passage is concerned with “the price of higher education” (sentence 2), not how tuition rates “affect the quality of the education [students] receive.”
-
6. The question asks where the sentence should be added to best support the ideas in the second paragraph (sentences 4–7).
- E. Incorrect. Sentence 4 introduces the main idea of the second paragraph (making college “a financially realistic option for those who aspire to obtain a degree”) and should not be preceded by the added sentence, which focuses more narrowly on the specific ways that some states are implementing that idea.
 - F. **CORRECT.** The added sentence provides a proposed solution to the issue stated in sentence 4, that “a college education should be a financially realistic option.” Sentence 5 is an example of the programs discussed in the added sentence.
 - G. Incorrect. Sentences 5 and 6 offer examples of state governments providing “low-cost or free” tuition. The added sentence introduces this idea in the second paragraph and should come before these specific examples are provided as evidence.
 - H. Incorrect. Sentence 6 provides an example of the state government of Tennessee providing “low-cost or free” tuition, and sentence 7 further explains the opinion of those in favor of such programs (“a step in the right direction for making college affordable”). However, the ideas in sentences 6 and 7 follow from and support the idea in the added sentence. Therefore, the added sentence should be placed in the paragraph before sentences 6 and 7, which help elaborate its idea.

7. The question asks which sentence presents information that shifts away from the topic of the third paragraph (sentences 8–13) and should be deleted.
- A. Incorrect. Sentence 9 explains that scholarship funding comes “from the state’s budget, which primarily comes from state taxes.” Sentence 10 logically follows the idea in sentence 9 by explaining that “as more students choose to attend college, more funds will be needed to cover the costs.” Therefore, sentence 10 should not be deleted, because it does not shift away from the topic of the paragraph.
 - B. **CORRECT.** Sentence 10 makes the claim that “as more students choose to attend college, more funds will be needed to cover the costs.” Sentence 11 shifts away from this topic by focusing on how switching majors or working affects students’ ability to finish college, rather than on the additional funds that will be needed for scholarship programs. Therefore, sentence 11 should be deleted.
 - C. Incorrect. Sentence 9 states that scholarship program funding comes “from the state’s budget, which primarily comes from state taxes.” Sentence 10 points out that “as more students choose to attend college, more funds will be needed to cover the costs.” Sentence 12 elaborates on the critics’ opinions discussed in sentences 8–10. It reflects the belief that the “circumstances” described in sentences 9 and 10 “will inevitably lead to an increase in taxes, a decline in the quality of the education offered by the schools, or both.” Thus, sentence 12 should not be deleted, because it does not shift away from the topic of the paragraph.
 - D. Incorrect. Sentence 13 refers back to the “critics” mentioned in sentence 12 and expands on the critics’ concern about increased taxes mentioned in sentence 12 by stating that “narrower college-affordability efforts . . . may be more effective and viable solutions.” Therefore, sentence 13 should not be deleted because it logically follows the ideas in sentence 12 and serves as a concluding sentence for the paragraph.

- 8.** The question asks which phrase should be added before sentence 14 to best transition to the ideas in the fourth paragraph (sentences 14–17).
- E.** Incorrect. Sentence 13 summarizes the viewpoint of opponents, who believe that targeted approaches to funding education “may be more effective and viable solutions,” and sentence 14 serves to introduce how “faculty and students at higher-education institutions can work to keep costs down.” Affordability is “a complicated issue,” but the use of the word “Because” suggests that the ideas that follow in sentences 14–17 will explain a cause-and-effect relationship. However, sentences 14–17 discuss ways faculty and students should work together to keep the cost of college down while waiting for a long-term solution to the problem, not a causal relationship.
- F.** Incorrect. Sentences 4–13 provide information about the viewpoint of proponents, who believe that “a college education should be a financially realistic option for those who aspire to obtain a degree” (sentence 4), and opponents, who believe free college programs are “unsustainable” (sentence 8). Although the phrase in this option mentions “opinions,” it indicates that the fourth paragraph will discuss why the number of opinions makes affordability a debatable issue. Instead, the fourth paragraph discusses ways faculty and students can help keep costs down until a solution is reached.
- G. CORRECT.** Sentence 13 summarizes the viewpoint of opponents, who believe that targeted approaches to funding education “may be more effective and viable solutions,” while proponents “generally believe that these [government] programs are a step in the right direction for making college affordable” (sentence 7). However, sentences 14–17 offer three possible solutions that could alleviate the problem in the meantime. Therefore, the phrase in this option should be added before sentence 14 to best transition to the ideas in the fourth paragraph because it suggests that until the issue of affordability is resolved, alternatives are available to help make a college education more affordable.
- H.** Incorrect. This phrase mentions “college affordability,” a topic discussed in the fourth paragraph. However, the ideas introduced in the phrase do not logically lead into the ideas discussed in sentences 14–17, because the phrase mentions “programs [that] have been successful,” and the paragraph states that “faculty and students at higher-education institutions can work to keep costs down” (sentence 14) and that colleges “should account for experience by allowing students to demonstrate their knowledge in order to avoid having to pay to sit through classes on subjects they have already mastered” (sentence 16). Use of the words “can” and “should” in these sentences indicates that the actions or programs mentioned in the paragraph have not been completed.

9. The question asks which concluding sentence should be added after sentence 19 to support the topic of the passage.
- A. Incorrect. Although sentence 15 cites “increased access to computers, mobile devices, and the Internet” and states that “there are more opportunities for students to take courses online, thus reducing the need for and cost of maintaining physical classrooms,” the primary topic discussed throughout the passage is that state and federal governments, not faculty and students, must resolve the issue of college affordability. Therefore, the sentence should not be added after sentence 19, because it does not support the topic.
 - B. Incorrect. Sentence 5 presents the example of the New York State legislature, which “passed a bill creating a program to cover the tuition costs for nearly one million students.” Sentence 12 states that critics of this type of program believe that certain circumstances “will inevitably lead to an increase in taxes” or other issues such as low-quality education. However, the idea that these types of programs may lead to new problems is not thoroughly discussed in the passage. Therefore, the sentence should not be added after sentence 19, because it does not support the topic.
 - C. Incorrect. Although sentence 7 states that scholarship programs are helpful “for students who would have had to take out loans or who would have decided not to pursue higher education at all,” the passage does not state that many students will stop pursuing higher education until the affordability issues are solved. In fact, sentence 14 states that there are ways faculty and students can “work to keep costs down.” Therefore, the sentence should not be added after sentence 19, because it does not support the topic.
 - D. **CORRECT.** The sentence in this option should be added after sentence 19 to support the topic because it acknowledges that the issue of college affordability discussed throughout the passage is not “resolved” but that when it is, students will be able to make decisions about attending college without concerns about cost. Sentence 18 states that “the solutions to the problems associated with rising college costs are not simple,” and sentence 19 adds that “passing legislation that boosts college affordability will take time,” ideas, and planning.

READING COMPREHENSION

Massachusetts: Lowell National Historical Park

- 10.** The question asks why the author includes the quotation from the Scottish traveler in paragraph 1 of the passage.
- E.** Incorrect. While it is likely that people outside the United States recognized that both the natural landscape and the bustling industry were significant, the quotation from the Scottish traveler is meant to convey the variety of the types of attractions in the U.S., not to make a general statement about their contribution.
 - F.** Incorrect. The Scottish traveler mentions both “American scenery” and “American industry” in the quotation, but the intent is to highlight that they are each points of interest. The quotation does not provide a comparison of the two attractions.
 - G. CORRECT.** The quotation emphasizes the idea that the United States offers different attractions. The Scottish traveler highlights the two places in the United States that he will most remember: first, the beautiful natural formation of Niagara Falls (“the glory of Americansceneries”) and second, the industrial city of Lowell (“the glory . . . of American industry”).
 - H.** Incorrect. The Scottish traveler mentions both “American scenery” and “American industry” in the quotation but does not imply that the natural resources contributed to the development of industry.
-
- 11.** The question asks for the sentence in paragraph 2 that best supports the idea that Lowell became “a bustling industrial city” (paragraph 1).
- A.** Incorrect. While the sentence provides details on when the town of Lowell was founded and the natural features of the area, it does not support the idea that the city became “a bustling industrial city.”
 - B.** Incorrect. Although this sentence indicates that the mill buildings were a noticeable feature of the city and provides details on how the mills worked, it does not specifically show that Lowell had become “a bustling industrial city.”
 - C.** Incorrect. While this sentence lists some recognizable mill buildings along the river and notes when their associated businesses were established, it does not support the idea that Lowell was “a bustling industrial city.”
 - D. CORRECT.** This sentence indicates that within only a few decades of the city’s founding, it experienced massive industrial growth, with “40 textile mills employing over 10,000 workers,” supporting the idea that Lowell became “a bustling industrial city.”

- 12.** The question asks which statement best describes how the sentence in paragraph 3 fits into the overall structure of the passage.
- E. CORRECT.** The sentence in paragraph 3 provides a transition from the overall description of the city and the mills to a description of the women who made up the workforce in the mills. The idea that women left domestic life in favor of working in the mills is important in the passage, and the sentence serves to connect that idea to the previous discussion about the mills.
 - F.** Incorrect. While the mill girls' dissatisfaction with their working conditions is addressed later in the passage ("These wage cuts, deteriorating working conditions, and long workdays led the 'mill girls' to protest and organize strikes" [paragraph 4]), the sentence in paragraph 3 does not indicate a shift in tone from positive to negative. The sentence provides a transition to the discussion of the women who worked in the mills.
 - G.** Incorrect. Although the sentence in paragraph 3 mentions that women became interested in working in the mills because of the "constricted lifestyle of small rural towns," structurally the sentence does not function as a summary because, instead of expanding on the idea of the difficulties or challenges of life in small rural towns and rural areas, the paragraph goes on to describe the advantages and disadvantages of life in the city for these women.
 - H.** Incorrect. The sentence in paragraph 3 focuses on the choices women made to leave rural towns to work in the city in the early to mid-1800s, not the mid-1800s to the late 1800s. The sentence does not create a comparison between the workforce in the mid-1800s and that in the late 1800s.
-
- 13.** The question asks how the sentence in paragraph 5 contributes to the development of ideas in the passage.
- A.** Incorrect. The sentence from paragraph 5 does not imply that Lowell was founded by early Irish immigrants. The sentence explains how Irish immigrants had been settling in Lowell since the city was established and that they contributed to the construction of the city, which allowed it to become an industrial center several decades later.
 - B. CORRECT.** The sentence from paragraph 5 shows that early Irish immigrants were critical to the success of Lowell as an industrial city. This information supports the development of the idea that the work of Irish immigrants and immigrants from other places is an important element in the historical significance of industry in Lowell.
 - C.** Incorrect. The sentence from paragraph 5 does not suggest that new Irish immigrants were readily accepted into the community. Paragraph 5 states that "initially, Lowell's Protestant community was slow to welcome Irish immigrants, but the hostility between Yankee Protestants and Irish Catholics eventually disappeared."
 - D.** Incorrect. The sentence from paragraph 5 does not highlight the relationship between the mill girls and the new Irish immigrants. Paragraph 4 explains how the mill girls left Lowell, and paragraph 5 states that the mill girls were replaced by "predominantly Irish Catholics, who traveled to America during the Great Potato Famine" but does not discuss a relationship between them.

- 14.** The question asks for the sentence that best summarizes the mill girls' time as the dominant workforce in Lowell.
- E.** Incorrect. While the passage explains that mill girls were initially eager to leave the domestic duties of life in rural areas, the summary sentence does not address the details about the mill girls' time working in the mills or the changes that led the mill girls to leave the industry.
 - F.** Incorrect. Mill girls initially found satisfaction in the mill work and lifestyle, and when they did leave, immigrants filled the empty jobs. This summary sentence, however, does not address the details about the mill girls' time as the primary workforce in Lowell or the circumstances that led them to leave their jobs in the mid-1800s.
 - G.** Incorrect. Mill girls did leave home to work in the Lowell mills, and they did grow dissatisfied over time, but this summary sentence does not include details about the mill girls' actions to improve the working conditions.
 - H. CORRECT.** This sentence summary best captures the mill girls' experience as outlined in paragraphs 3 and 4. The sentence concisely summarizes both the women's initial excitement about the opportunity to live independently ("Women found that Lowell's mills offered monthly wages for their services and provided them room and board" [paragraph 3]) and their eventual inability to secure better working conditions ("When their demands went unheard, the women left Lowell, and immigrant groups replaced them in the workforce" [paragraph 4]).
-
- 15.** The question asks which description conveys the central idea that Lowell was "one of America's most significant industrial cities" (paragraph 1).
- A.** Incorrect. While the passage does state that the city's canals, mills, and boardinghouses were built by early immigrants from Ireland, these details do not contribute to the development of the overall idea that Lowell was a significant industrial city.
 - B.** Incorrect. The details about the women and immigrants who worked in the mills is important to the passage, but these details alone do not show that Lowell was a significant industrial city.
 - C. CORRECT.** The details throughout the passage about the development of the mills and the people who worked in them convey the significance of Lowell in early American industry. Paragraph 2 shares details about the businesses that started in the early 1800s and contributed to the development of industry in the region ("The most recognized of these buildings are the Lowell Manufacturing Company chartered in 1821, the Suffolk or Wannalancit Mill completed around the 1880s, the Boott Mill Company established in 1835, and the Boott Mill Boardinghouse that opened in 1838"). Then paragraphs 3–6 provide specific details about the people who worked in the mills at different points in time.
 - D.** Incorrect. Although the passage references Lowell's culturally diverse community ("Young Yankee women, immigrant families, and European tourists all flocked to Lowell to find work at one of the many textile mills" [paragraph 1]), these groups alone are not what marked Lowell as a significant industrial city.

16. The question asks for the reason that best illustrates why Lowell lost its status as an industrial leader.
- E. Incorrect. While the passage discusses the “long work hours, low wages, and poor living conditions in the city’s crowded tenements” (paragraph 6) in Lowell, these details highlight the living and working conditions of immigrant groups. The author does not state that poor living and working conditions are the reason Lowell lost its status as a “model of industry.”
 - F. Incorrect. Paragraph 5 in the passage acknowledges that there was some tension between the different ethnic and religious groups in Lowell, but this idea is not what led to Lowell’s decline as a “model of industry.”
 - G. **CORRECT.** When Lowell was initially established, the mills in the city thrived because of their advanced manufacturing methods (“gaining global recognition for its state-of-the-art technology, innovative canal and dam system, [and] mill architecture” [paragraph 1]). However, manufacturing technology changed and improved over time, and many mill owners chose to close the mills rather than modernize them, resulting in Lowell’s loss of status as a “model of industry” (“The city officially began to close down its mills in the 1920s and ’30s after Lowell’s outdated mills could no longer compete against the state-of-the-art cotton mills in other communities” [paragraph 6]).
 - H. Incorrect. The details about the temporary revival of the mills during World War II do not show why Lowell is no longer considered a “model of industry.” The mills were used briefly during wartime because of an increased need for supplies, but this use of the mills was short-lived.
-

Excerpt from *A Tramp Abroad*

17. The question asks what the inclusion of the phrase from paragraph 1, which highlights the behavior of ants from different parts of the world, shows about the author.
- A. Incorrect. In the excerpt, the author is comparing different species of ants with one another and not with other living creatures.
 - B. **CORRECT.** The phrase from paragraph 1 is meant to acknowledge that while the author believes that “the ordinary ant” is foolish, his observations in the excerpt do not apply to other types of ants.
 - C. Incorrect. Although the author suggests that disproving a commonly held belief about the behavior of ants from different parts of the world is challenging, the author does not directly express this opinion in the excerpt.
 - D. Incorrect. While the author suggests in the excerpt the idea that his conclusions drawn about the ants’ behavior are flawed, the reference to Swiss and African ants is meant to show that those ants are an exception.

- 18.** The question asks for an explanation of how the words “grabs,” “yanks,” and “tearing away” (paragraph 2) contribute to the meaning of the excerpt.
- E.** Incorrect. Although the ant’s actions suggest that he believes he has an important job to complete, the words used in the paragraph focus on the ant’s movements rather than on his beliefs.
 - F.** Incorrect. The ant’s inability to make progress while transporting the grasshopper leg by himself demonstrates the ant’s inefficiency (“At the end of half an hour he fetches up within six inches of the place he started from” [paragraph 2]).
 - G.** Incorrect. The ant does not complete his tasks, despite moving in a hurried and determined way (“not calmly and wisely, but with a frantic haste which is wasteful of his strength” [paragraph 2]).
 - H. CORRECT.** These words convey sudden movements as the ant becomes more upset in his efforts to transport the grasshopper leg.
-

- 19.** The question asks how the sentence, which states that the ant ends up only six inches from his original starting point, contributes to the central idea of the excerpt.
- A.** Incorrect. While the author recognizes the pointlessness of the efforts, the ant never becomes aware that his efforts are purposeless.
 - B. CORRECT.** The sentence explains how the idea in the sentence supports the central idea that “the average ant is a sham” (paragraph 1) by emphasizing his lack of progress and wasted effort.
 - C.** Incorrect. The ant ending up only six inches from his starting point suggests pointless effort, not an industrious or productive attitude.
 - D.** Incorrect. The emphasis of the sentence is on the ant’s wasted effort, not the difficulty and time involved, which the ant never realizes or evaluates.

- 20.** The question asks which idea the description at the end of paragraph 2 conveys about the repetition of the ant’s actions.
- E.** Incorrect. The description at the end of paragraph 2, in which the ant “goes through the same adventures” to no avail, does not convey the idea that mistakes are necessary in order to make progress.
 - F.** Incorrect. The description at the end of paragraph 2, in which the ant runs away in a “violent” hurry and “traverses a good deal of zig-zag country, and by and by stumbles on his same booty again . . . not remember[ing] to have ever seen it before,” does not convey the idea that rushing to meet a goal may lead to an undesirable outcome, because the last line in paragraph 2 refers to the ant’s repetitive actions as an adventure (“He goes through the same adventures he had before”).
 - G.** Incorrect. The description at the end of paragraph 2, in which the ant repeatedly “stumbles on his same booty again,” does not convey the idea that breaking out of a familiar pattern of events is difficult, because the industrious ant “does not remember” (paragraph 2) and is thus unaware that he is repeating his actions.
 - H. CORRECT.** The description at the end of paragraph 2 says that the ant “traverses a good deal of zig-zag country, and by and by stumbles on his same booty again. He does not remember to have ever seen it before; he looks around to see which is not the way home, grabs his bundle, and starts. He goes through the same adventures he had before,” thus indicating that the ant is both industrious and foolish in his actions.
-

- 21.** The question asks for a sentence from the excerpt that best supports the idea that the ant’s “leather-headedness” (paragraph 2), or the ant’s stubborn determination to engage in foolish and worthless actions, amounts to “ignorance” and “idiocy” (paragraph 4).
- A.** Incorrect. Although this sentence asks about what the ant does after “he makes a capture” (paragraph 2), this rhetorical question remains unanswered and the sentence does not best demonstrate how the ant’s stubborn determination in engaging in foolish and worthless actions amounts to “ignorance” and “idiocy.”
 - B.** Incorrect. While this sentence indicates what the ant does after “he makes a capture” (paragraph 2), the sentence does not best demonstrate how the ant’s stubborn determination in engaging in foolish and worthless actions amounts to “ignorance” and “idiocy,” because it describes typical ant behavior, in which there is nothing inherently foolish until it is applied stubbornly in the wrong direction (“he lifts it bodily up . . . and starts—not toward home, but in the opposite direction; not calmly and wisely, but with a frantic haste which is wasteful of his strength” [paragraph 2]).
 - C. CORRECT.** In the sentence, the ant realizes he is in the wrong place only after wasting effort and strength. “He cannot stroll around a stump and find his way home again. This amounts to idiocy” (paragraph 4). Thus, this sentence best demonstrates how the ant’s stubborn determination in engaging in foolish and worthless actions amounts to “ignorance” and “idiocy.”
 - D.** Incorrect. Even though this sentence uses the word “aimlessly” to suggest an element of foolishness, the sentence describes the physical aftermath of the ant’s exertions, but without the context of those exertions, it cannot be said to show “leather-headedness” or “ignorance” and “idiocy.”

- 22.** The question asks how the second ant, a friend, influences the first ant.
- E.** Incorrect. The first ant does not know where his home is (paragraph 2: “He doesn’t know where home is. His home may be only three feet away; no matter, he can’t find it”).
 - F.** Incorrect. While the friend offers to help the first ant (paragraph 3: “Evidently the friend contracts to help him freight [the grasshopper leg] home”), he does not inspire a new approach to resolving the situation.
 - G. CORRECT.** The friend’s complimentary remark about the grasshopper leg serves to encourage the first ant to continue his efforts to drag the useless object home (paragraph 3: “Evidently the friend remarks that a last year’s grasshopper leg is a very noble acquisition”).
 - H.** Incorrect. While the friend does make it difficult for the first ant to transport the grasshopper leg, the friend is not intentionally trying to prevent the first ant from reaching home (paragraph 3: “Then, with a judgment peculiarly antic [pun not intentional], they take hold of opposite ends of that grasshopper leg and begin to tug with all their might in opposite directions”).
-
- 23.** The question asks for the text from the excerpt that best explains why the author finds the behavior of the ants fascinating.
- A.** Incorrect. The quoted text provides details that reflect the author’s basic interest, but this observation does not extend to the level of fascination.
 - B.** Incorrect. Although the author states “I admit his industry” and acknowledges that ants are hardworking, the author does not explain in the quoted text why he finds the behavior of the ants fascinating.
 - C.** Incorrect. The quoted text provides details that would reflect a basic interest and observation but that do not extend to fascination.
 - D. CORRECT.** The author’s purpose in describing the excessively foolish actions of the ants is to prove his argument that in spite of what people have long believed, ants are completely lacking in intelligence. The author’s use of the phrase “beyond comprehension” in the quoted text shows the author’s fascination with the difference between public opinion and observed truth.

- 24.** The question asks for an explanation of how the sentence from paragraph 3, which highlights the second ant's interest in the grasshopper leg, fits into the structure of the excerpt.
- E.** Incorrect. The idea that the ant seeks out worthless items is established in paragraph 2 ("it is generally something which can be of no sort of use to himself or anybody else") and in paragraph 3 ("valueless enough to make an ant want to own it"), but the sentence does not indicate a shift to a realization that the ants place great importance on an item that has little value.
 - F. CORRECT.** This statement best describes how the sentence from paragraph 3 fits into the overall structure of the excerpt because the sentence emphasizes a shift from paragraph 2, which analyzes the actions of the first ant alone, to paragraph 3, which comments on the interaction between the two ants and the ensuing efforts of the two ants together as they "take hold of opposite ends of that grasshopper leg and begin to tug with all their might in opposite directions" (paragraph 3).
 - G.** Incorrect. While the author states in paragraph 3 that the ants "take hold of opposite ends of that grasshopper leg and begin to tug with all their might in opposite directions" and they "go to work again in the same old insane way," this statement does not best describe how the sentence from paragraph 3 fits into the overall structure of the excerpt, because the sentence does not create a transition to the idea that specific observations allow for a generalization about all ants.
 - H.** Incorrect. Although the author states in paragraph 3 that "the friend contracts to help him freight [the grasshopper leg] home," the author does not suggest that the ants' actions are purposeful. Rather, the author describes their actions and their "judgment [as] peculiarly antic" (paragraph 3). Thus, the statement does not best describe how the sentence from paragraph 3 fits into the overall structure of the excerpt, because the sentence does not provide a transition to the observation that the ant's friend is just as purposeful in his efforts toward a futile ending as the first ant is.
-
- 25.** The question asks how the central idea that "the average ant is a sham" (paragraph 1) is mainly conveyed in the excerpt.
- A. CORRECT.** The excerpt focuses on the author's humorous explanation of the ineffective struggles of two ants to accomplish a task, and the excerpt concludes with the statement that ants are not as smart as people think: "the ant has been able to fool so many nations" (paragraph 4).
 - B.** Incorrect. The reference to ants in other locations is a detail mentioned only in paragraph 1 and is not directly related to the central idea mentioned in the question.
 - C.** Incorrect. While the narrator does observe the ants, the observations made are highly opinionated and not characterized as especially insightful or perceptive.
 - D.** Incorrect. Although paragraph 2 states that the ant seeks out objects that are "generally something which can be of no sort of use to himself or anybody else," this reference is not the main way that the author conveys the premise that ants are a sham or false.

Using Fire to Keep a Prairie Healthy

26. The question asks how observing the effects of the fires started by natural causes prompted American Indians to begin practicing controlled burns.
- E. **CORRECT.** In paragraph 2, the author states that American Indians observed bison “grazing on tender new grass on the recently burned land rather than on grass in the unburned areas.” These observations prompted the practice of controlled burns as a means of enticing “the herds away from the people’s crops.”
 - F. Incorrect. Although the author mentions in paragraph 4 that the primary targets of a controlled burn are red cedar trees and that “these tall trees also cast shade that prevents sunlight from reaching the plants beneath them,” this detail supports why conservationists use controlled burns today, not what initially prompted the use of controlled burns.
 - G. Incorrect. While the author states in paragraph 3 that “the process of burning excess plant matter adds nitrogen, an essential element for plant growth, to the soil” and that “intentionally burning a portion of land can dramatically improve the quality of the vegetation that regrows there,” these details do not explain the initial observations that prompted American Indians to practice controlled burning.
 - H. Incorrect. The author mentions in paragraph 2 that the bison “seemed to prefer grazing on tender new grass on the recently burned land rather than on grass in the unburned areas” and that the availability of this new grass “enticed the herds away from the people’s crops.” While these details show that the use of controlled burns influenced the behavior of the bison, the author does not suggest that the bison changed their migration habits in order to flee wildfires.
-
27. The question asks how targeting red cedar trees in controlled burns affects the animals that live on the prairie.
- A. **CORRECT.** According to information in paragraph 4, targeting invasive red cedar trees with controlled burns affects animals that live on the prairie by ensuring that these trees do not “crowd out prairie grasses, the primary food source for wild and domestic animals that make the prairie their home.” The paragraph also states that each red cedar tree consumes “up to 40 gallons of water per day, taking this vital resource away from other plant life.” Removing red cedars thus increases the amount of water available to the prairie grasses and helps maintain favorable conditions for the animals’ main source of food.
 - B. Incorrect. Although the author mentions the potential danger to wildlife from an uncontrolled burn in paragraph 5, the author emphasizes that patch burning “allows animals in the burn area to safely relocate.” Therefore, the animals that live near trees scheduled for removal are not endangered by the controlled burns.
 - C. Incorrect. In paragraph 4, the author states that “a single red cedar tree can consume up to 40 gallons of water per day, taking this vital resource away from other plant life.” However, the author does not suggest that reducing the number of red cedar trees through controlled burns ensures a sufficient water supply for animals that live on the prairie.
 - D. Incorrect. In paragraph 4, the author states that “these tall trees also cast shade that prevents sunlight from reaching the plants beneath them.” However, the author does not suggest that using controlled burns to eliminate red cedar trees reduces a natural source of shade for prairie animals. The red cedar trees are invasive; therefore, the author does not consider them a “natural” part of the prairie ecosystem.

- 28.** The question asks what the author intends to show by using the second sentence in paragraph 6 in the passage.
- E.** Incorrect. Although the author refers to the conservationists as “experts” in paragraph 5 and states that conservationists “provide training to prairie farmers” (paragraph 6), the second sentence in paragraph 6 does not imply that the conservationists are better qualified to lead preservation efforts than farmers are. Instead, the sentence shows that conservationists believe that prairie farmers are capable of performing the controlled burns that contribute to overall conservation efforts.
 - F. CORRECT.** The conservationists are eager to involve others in the preservation of the prairie, because “studies show that the patch-burn approach has restored biodiversity to the area by promoting the growth of species that were at risk of being crowded out” and that the process has “helped the prairie sustain life for hundreds of years” (paragraph 6). The second sentence in paragraph 6 describes how conservationists are sharing their knowledge about preservation techniques with people who live on the prairie.
 - G.** Incorrect. Although the author points out in paragraph 6 that “studies show that the patch-burn approach has restored biodiversity to the area by promoting the growth of species that were at risk of being crowded out,” the idea that controlled burns may help restore the original biodiversity of the prairie is not the focus of the second sentence in paragraph 6, which notes only that conservationists are providing training to farmers about controlled burns.
 - H.** Incorrect. The author mentions in paragraph 6 that the patch-burn system has been “successful” and suggests in the last sentence of the paragraph that the use of controlled burns will continue to benefit the prairie ecosystem. These details imply that this system will continue to be used and may even become more widespread. However, the second sentence in paragraph 6 merely describes a patch-burn training program that already exists and does not suggest that this program should serve as a model for other organizations.

29. The question asks which details from the passage best convey the central idea that using the patch-burn method is an effective way to protect and manage prairie land.
- A. Incorrect. The author explains in paragraph 5 that “patch burning contains the fire within a specific area and allows animals in the burn area to safely relocate.” This explanation conveys two supporting ideas: the patch-burn method is controllable, and patch-burn fires do not pose a threat to animals. However, this explanation does not address the broader central idea that the patch-burn method is an effective way to protect and manage prairie land.
 - B. Incorrect. In paragraph 5, the author states that “the key to using controlled fires is knowing which areas of land to burn and when.” The author then provides information about how conservation experts “study the land to find out which areas would most benefit from being burned.” However, these details convey supporting ideas rather than the central idea that using the patch-burn method is an effective way to protect and manage prairie land.
 - C. **CORRECT.** In paragraph 3, the author states that “fires burn away weedy undergrowth and help limit the overcrowding of shrubs and trees in the burn area, creating less competition for water and nutrients.” Also, in paragraph 6, the author states that patch burning “has restored biodiversity to the area by promoting the growth of species that were at risk of being crowded out.” These details directly convey the central idea that using the patch-burn method is an effective way to protect and manage prairie land.
 - D. Incorrect. The author explains in paragraph 5 how conservationists “arrange about a dozen burns over one-third of the land,” which helps show how the patch-burn method is applied by conservationists. However, this is a supporting detail that conveys the idea that the burns are deliberately set and carefully controlled. This detail does not convey the central idea that using the patch-burn method is an effective way to manage and protect prairie land.
-
30. The question asks which sentence supports the idea that farmers and people who manage land may be concerned about using fire as a way to benefit the land.
- E. **CORRECT.** The sentence from paragraph 1 supports the idea that farmers and people who manage land may be concerned about using fire as a way to benefit the land because it acknowledges that “one of the greatest threats to the prairie is wildfire.”
 - F. Incorrect. Although the sentence from paragraph 2 relates how American Indians “began to deliberately burn areas of land for bison to graze on” and to protect people’s crops, the sentence does not support the idea that farmers and people who manage land may be concerned about using fire as a way to benefit the land. Instead, it focuses on the cause-and-effect relationship between bison and newly burned areas.
 - G. Incorrect. The sentence from paragraph 5 provides details about how “patch burning contains the fire” and “allows animals in the burn area to safely relocate,” but it does not adequately support the idea that farmers and people who manage land may be concerned about using fire as a way to benefit the land, because it does not mention that wildfires can be a threat to the prairie.
 - H. Incorrect. While the sentence from paragraph 5 does explain how “conservationists will burn a different section of the preserve” in order to rotate the process year after year so that the burned land has time to regrow, the sentence does not support the idea that farmers and people who manage land may be concerned about using fire as a way to benefit the land because it does not mention the potential for total burns.

- 31.** The question asks which idea the words “counterintuitive” and “strategic” convey in the last sentence in paragraph 6 in the passage.
- A.** Incorrect. Though the author states in paragraph 6 that conservationists have used safe and “strategic” methods, those methods have not been ineffective, since “the patch-burn system is so successful that the conservationists at the preserve provide training to prairie farmers about conducting controlled burns on their own land” (paragraph 6). Therefore, the words “counterintuitive” and “strategic” in the last sentence of paragraph 6 do not convey the idea that the safest methods are sometimes the least effective at solving complex challenges.
 - B.** Incorrect. Although the author points out in paragraph 6 that researchers’ studies have shown “that the patch-burn approach has restored biodiversity to the area by promoting the growth of species that were at risk of being crowded out,” the author does not suggest that the methodologies conservationists used to conduct the patch burns are uncommon, since the methods were used by “the American Indian people [who] began to deliberately burn areas of land for bison to graze on” (paragraph 2). Therefore, the words “counterintuitive” and “strategic” in the last sentence of paragraph 6 do not convey the idea that thorough investigation of uncommon methodologies can lead to beneficial results.
 - C. CORRECT.** In paragraph 1, the author states that “one of the greatest threats to the prairie is wildfire,” so the idea of conducting controlled burns suggests risk and runs “counter,” or contrary, to people’s common expectations, or “intuition,” about the dangers of fires. Thus, the words “counterintuitive” and “strategic” in the last sentence of paragraph 6 convey the idea that detailed planning can ensure that a potentially destructive action has a positive impact.
 - D.** Incorrect. The author states in paragraph 6 that “the patch-burn system is so successful that the conservationists at the preserve provide training to prairie farmers.” This statement supports the idea of the action being “strategic” in order to achieve success. However, the statement does not suggest that because the process is “counterintuitive,” or unexpected, it involves a certain amount of risk to achieve that success. Therefore, the words “counterintuitive” and “strategic” in the last sentence of paragraph 6 do not convey the idea that plans that entail a certain amount of risk almost always result in success.

- 32.** The question asks with which statement the author of the passage would most likely agree.
- E.** Incorrect. In paragraph 5, the author states that “patch burning contains the fire within a specific area and allows animals in the burn area to safely relocate,” and paragraph 6 states that conservationists “provide [important] training to prairie farmers about conducting controlled burns on their own land.” However, the author does not explicitly take a position about the importance of explaining the purposes and the risks of controlled burns to the people living near a proposed burn area. Therefore, the evidence in the passage does not strongly suggest that the author would agree with this statement.
 - F. CORRECT.** In paragraph 5, the author points out that conservationists “study the land to find out which areas would most benefit from being burned, and then they arrange about a dozen burns over one-third of the land” and “rotate which portion of land is burned each year” so that animals, such as bison, can “safely relocate.” Therefore, the author would most likely agree that it is necessary to thoroughly examine a particular region in order to plan and execute a successful controlled burn.
 - G.** Incorrect. The author of the passage would be unlikely to agree that monitoring animals’ reactions after a controlled burn on the prairie is a minor part of scientists’ research. In paragraph 5, the author explains that patch burning “allows animals in the burn area to safely relocate” and that conservationists “burn a different section of the preserve” each year to ensure that animals have an abundant area to graze while other areas are being burned.
 - H.** Incorrect. According to the information in paragraph 4, conservationists commonly target invasive red cedar trees because they are tall trees that “crowd out prairie grasses, the primary food source for wild and domestic animals that make the prairie their home.” Since the focus is on the harm that the invasive red cedar can cause, the author would be unlikely to agree that conservationists should consider the helpful aspects of invasive species before executing a controlled burn.

33. The question asks how the diagram and its text provide additional support for the topic presented in the passage.
- A. **CORRECT.** The text of the diagram states that “by using a patch-burn method, conservationists and farmers can reduce the risk of unintentional fires and control where grazing animals, such as bison, roam.” By showing the pattern of controlled burns and the resulting bison migration in a given area, the diagram depicts how the landscape changes as the patch-burn method is applied.
 - B. Incorrect. Although the text mentions areas “where grazing animals, such as bison, roam,” the diagram does not depict distinctive features of the land such as trees or brush and therefore does not indicate that patch-burn fires are best suited for use in areas with certain features.
 - C. Incorrect. While the text mentions “grazing animals, such as bison” and the diagram shows the bison grazing in only one area, the diagram and its text do not indicate that the patch-burn method is used on uninhabited land.
 - D. Incorrect. While the areas of land depicted in the diagram do indicate that the sizes of the areas differ, the text provided does not compare the sizes of the areas burned by the patch-burn method with those of unburned areas or indicate that this factor is important in reducing the risk of uncontrolled fires or controlling “where grazing animals, such as bison, roam.”

Cross-Purposes

34. The question asks how the similarity in the construction of lines 1 and 8 contributes to the meaning of the poem.
- E. **CORRECT.** In line 1, the first speaker asserts, “What I am is *built*: concrete and steel,” and in line 8 the second speaker states, “*What I am is motion. I am water, and I am older.*” The similarities in the construction of these lines contribute to the meaning of the poem by establishing each speaker’s defining feature.
 - F. Incorrect. The focus of the lines is defining the speakers’ individuality, not how one speaker resolves a problem created by the other.
 - G. Incorrect. The structure is not stating in line 1 that it is limited because it was built to stand in place; on the contrary, the structure is stating that this sense of purpose and permanence is its strength.
 - H. Incorrect. Although in these lines the first speaker asserts “I am . . . *built*: concrete and steel” (line 1) and the second speaker asserts “*I am . . . motion*” (line 8), the construction of these lines does not contrast the stability and instability of the speakers. Rather, each speaker highlights its own features.

- 35.** The question asks how lines 2–4 and 12–14 contribute to the development of a central idea in the poem.
- A.** Incorrect. Although the phrases “remain[ing] at the apex of the leap” in line 3 and “*I catch everything*” in line 13 suggest the idea of endurance and control, the lines do not establish that both the structure and the water have endurance and control, because the water also states, “*I pool / and flow wherever gravity takes me*” (lines 10–11).
 - B. CORRECT.** The lines “I am what every athlete / wants” (lines 2–3) and “*I am the blood flowing in the runner’s chest*” (line 12) communicate that each speaker is an object of admiration and a powerful force.
 - C.** Incorrect. The lines describe opposing characteristics: the structure’s description conveys stillness—remaining “up in the air” (line 4)—while the water’s description conveys movement—“*flowing in the runner’s chest*” (line 12).
 - D.** Incorrect. The first speaker states, “I am what every athlete / wants” in lines 2–3, and the second speaker states, “*I am the blood flowing in the runner’s chest*” in line 12. The similarity of these metaphors may seem to suggest interrelationship, but the structures do not reveal surprise that they are interrelated.
-
- 36.** The question asks which idea the use of the words “siblings” and “my sisters and brothers” in lines 31–32 conveys in the poem.
- E.** Incorrect. Although in line 29 the structure refers to itself as “being rebuilt” or taking on new forms, this idea is expressed to reinforce the idea that the structure’s presence is eternal (“a friend of time,” line 30). The use of the words “siblings” and “my sisters and brothers” in lines 31–32 does suggest that a variety of structures exist, but no comparison is drawn to suggest that the varieties of structures are more diverse than the forms of water.
 - F.** Incorrect. While the use of the words “siblings” and “my sisters and brothers” in lines 31–32 conveys the idea that structures can be replicated by being built, it does not convey the idea that the number of human-made structures is rapidly increasing.
 - G.** Incorrect. Although in line 33 the structure states, “We stitch across the rip you make,” suggesting that water passes under structures, the use of the words “siblings” and “my sisters and brothers” in lines 31–32 does not convey the idea that the structures that the water passes under are similar-looking.
 - H. CORRECT.** The use of the words “siblings” and “my sisters and brothers” in lines 31–32 conveys the idea that the structure is powerful because it is one of many and because these structures “stitch across the rip” (line 33) that water makes.

- 37.** The question asks what the comparison in lines 33–35 shows about the structure.
- A.** Incorrect. Although the structure states in line 33 that structures like itself “stitch across the rip” water makes, which may seem to suggest that the structures restore beauty to a ruined landscape, the language in the lines is used only to suggest that the structure is a tool used to unify the physical landscapes that humans inhabit.
 - B.** Incorrect. While the water states that it enables “*empires to rise*” (line 25), implying that it is needed for society to thrive, the structure never expresses the idea that it serves the purpose of bringing people together through its existence.
 - C.** Incorrect. Although the phrases “We stitch across” (line 33) and “We bind you up” (line 35) suggest the existence of boundaries, the comparisons made in lines 33–35 do not help show that the structure provides clear boundaries for natural environments.
 - D. CORRECT.** The speaker states, “We are steel thread to the human needle” (line 34), which illustrates that the structure and others like it are tools used by humans to “bind . . . up” (line 35) or overcome “the rip” (line 33) that the water creates in the earth.
-

- 38.** The question asks how the last stanza conveys a central idea in the poem.
- E.** Incorrect. Although in the last stanza the water states, “*my vapors cling. / They bring out your softness, your rust,*” the water does not depend on the structure; instead, the water destroys it over time. The structure depends on the power of water for its ability to fulfill its function.
 - F.** Incorrect. The last stanza refers to the opposing speaker (the structure) and not to any other structure.
 - G.** Incorrect. While in the last two lines of the poem the water states, “*Because I am, / above all else, patient. I will wait for you,*” implying that the water can withstand the ravages of time, the phrase “*your softness, your rust*” (line 38) indicates that the structure cannot. Therefore, the last stanza does not reveal that the passage of time will render both the structure and the water obsolete.
 - H. CORRECT.** In lines 36–38, the water describes how its “*vapors cling*” to the structure, bringing out the structure’s “*softness*” and “*rust,*” destroying the structure over time. Also, in line 42, the water says it is “*patient*” and “*will wait for*” the structure, suggesting that the speaker will be around long after the structure is gone.

39. The question asks how the implication in lines 41–42 is supported by other lines in the poem.
- A. **CORRECT.** The words “*patient*” and “*wait*” in line 42 suggest that the water has the ability to outlast the structure, because the water doesn’t weaken as it ages.
 - B. Incorrect. Although the statement “*No human / built me*” in lines 9–10 suggests that the speaker existed prior to humans, which may seem to support the idea of endurance in line 42, this answer is incorrect because in lines 41–42 the speaker is referring to outlasting the structure, not humans.
 - C. Incorrect. While the statement “*It all washes down through me*” in line 14 suggests that everything in the natural world is interrelated, the water sets itself apart from the human-made structure because it asserts that it will outlast the other structure and is “*above all else, patient*” (line 42).
 - D. Incorrect. In line 26, the water’s knowledge does not make its ability to wait any stronger—rather, its seemingly unending lifespan does.
-

40. The question asks how the poet develops the two points of view.
- E. Incorrect. While the poem relates how the water views the structure as “*an artifact / slowly decaying*” in lines 23–24 and the structure refers to itself as “a friend of time” in line 30, the poet does not give an account of a discussion about the future of human civilization between the structure and the water in the poem.
 - F. Incorrect. While the speakers do discuss their impact on the environment, there is no narrator speaking for them.
 - G. Incorrect. Although the structure states it is made of “concrete and steel” (line 1) and is a “steel thread to the human needle” (line 34), only the water claims to possess power over nature, stating that “*all washes down through me*” (line 14) and “*what I am is power*” in line 22.
 - H. **CORRECT.** The poet develops the speakers’ points of view by personifying (giving human characteristics to something nonhuman such as an object or animal) the structure and the water, allowing them to debate by criticizing each other and declaring their own importance.
-

41. The question asks how the form of the poem contributes to its meaning.
- A. Incorrect. The number of lines in each stanza does not emphasize the importance of the two speakers.
 - B. Incorrect. Italics are used mainly to designate the voice of the second speaker (the water).
 - C. **CORRECT.** The alternating positions of the stanzas create the appearance of a conversation in which the speakers share their opposing points of view.
 - D. Incorrect. The lack of rhyme scheme or meter is intended to create a conversational tone rather than reflect the changes the water causes or experiences.

Excerpt from "Impressions of an Indian Childhood"

- 42.** The question asks how the phrases "cool morning breezes swept freely" and "wafting the perfume of sweet grasses" affect the tone of paragraph 1 in the excerpt.
- E.** Incorrect. Although the author describes in paragraph 1 the setting of her childhood experiences, the positive wording of the phrases the author uses in the paragraph ("swept freely" and "perfume of sweet grasses") does not suggest a tone of sadness the author feels when she reflects on her former way of life.
 - F.** Incorrect. Although the phrases "cool morning breezes swept freely" and "wafting the perfume of sweet grasses" used in paragraph 1 create a positive tone, the phrases do not suggest an enthusiasm for the author's work but rather an appreciation of the peaceful beauty of her childhood.
 - G. CORRECT.** In paragraph 1, the phrases "cool morning breezes swept freely" and "wafting the perfume of sweet grasses" are used to describe where the author's childhood experiences took place. The phrases create a tone of fondness and evoke a feeling of happiness through their lyrical sensory detail: "swept freely" suggests a sense of joyful possibility, while "perfume," "sweet," and "cool" convey delight.
 - H.** Incorrect. Although the author describes her mother's beadwork lessons as "confining" in paragraph 7, the phrases in paragraph 1 do not suggest that the author feels conflicting or mixed emotions toward her work and her mother. Instead, the phrases convey a positive tone by affectionately describing the author's childhood home.
-
- 43.** The question asks what the phrase "just as an artist arranges the paints upon his palette" in paragraph 2 suggests in the excerpt.
- A. CORRECT.** In paragraph 2, by comparing the way her mother arranges the beads to the way a painter "arranges the paints upon his palette," the author emphasizes that her mother approaches her craft just as a painter does, thus suggesting that beadwork is a true form of art.
 - B.** Incorrect. Although the author mentions "bunches of colored beads" in paragraph 2, this detail does not provide enough evidence for the idea that color inspires beadworkers. The phrase "just as an artist arranges the paints upon his palette" indicates the connection of beadwork to other forms of art in general, not necessarily to the specifics of color as a source of inspiration.
 - C.** Incorrect. In paragraph 2, the author describes her mother "untying the long tasseled strings" and then spreading "upon a mat beside her bunches of colored beads." However, the phrase "just as an artist arranges the paints upon his palette" does not suggest that all artistic activities begin with a series of steps. There is no mention in the passage of any other artistic activities involving multiple initial steps.
 - D.** Incorrect. In paragraph 2, the author describes how her mother "spread upon a mat beside her bunches of colored beads" as the first step in the artistic process described in the passage. Therefore, the comparison between the mother's process and a painter arranging paints on a palette suggests that the mother is creating art, not imitating it. There is no indication that the mother is copying a technique she has seen in other art forms.

- 44.** The question asks how the author’s use of sequence in paragraphs 1 and 2 contributes to the development of ideas in the excerpt.
- E.** Incorrect. In paragraph 2, the author does list the steps her mother takes in preparation to do beadwork, such as “untying the long tasseled strings” of the bag of beads, spreading the beads beside her on a mat, and using “a long, narrow blade” to trim the buckskin into shape. However, the language used to describe this sequence does not indicate that preparing to work with beads is difficult or complex.
 - F.** Incorrect. Although the author’s description of untying the bag of beads, spreading the beads upon a mat, smoothing out a sheet of buckskin, and trimming the buckskin into shape in paragraph 2 indicates that the mother follows a certain routine, it does not place any emphasis on working most efficiently by following the steps of the beading process in a precise order.
 - G.** Incorrect. In paragraph 2, the author describes her mother “untying the long tasseled strings that bound a small brown buckskin bag,” “spread[ing them] upon a mat beside her bunches of colored beads,” “smooth[ing] out a double sheet of soft white buckskin; and drawing from a beaded case that hung on the left of her wide belt a long, narrow blade” to trim the buckskin. Although these descriptions do outline the steps in her process for creating beadwork, they do not emphasize the time required to do so, since the author does not mention in the excerpt how long it took her mother to fully prepare for and complete the large and small tasks in the activity of beading.
 - H. CORRECT.** In paragraph 1, the author describes how the morning begins with her mother rolling up the canvas of the wigwam and allowing the breeze to come in. In paragraph 2, the author uses sensory language and precise sequencing to describe the way her mother prepares the beading materials by untying “the long tasseled strings that bound a small brown buckskin bag,” spreading the “bunches of colored beads” beside her, and smoothing out “a double sheet of soft white buckskin.” This combination of sequence and sensory language highlights the author’s enthusiasm for beadwork by emphasizing that the author pays close attention to her mother’s preparations.

45. The question asks how the details in paragraph 3 convey a central idea of the excerpt.
- A. Incorrect. In paragraph 2, the author mentions how her mother “worked upon small moccasins for her small daughter” and when she did, the author “became intensely interested in her [mother’s] designing.” However, in paragraph 3, the author is interested in her mother’s work mainly as part of her “lessons in the art of beadwork,” not because she knew her mother was making something for her.
 - B. Incorrect. In paragraph 3, the author receives “practical observation lessons in the art of beadwork” and describes how “from a skein of finely twisted threads of silvery sinews my mother pulled out a single one” and “pierced the buckskin, and skillfully threaded it with the white sinew.” The author describes the process in such detail that she provides no indication that she had difficulty learning through observation. The author also does not give any indication in the paragraph that she wanted to help her mother; she was there merely to observe and learn.
 - C. Incorrect. Although the author refers to her beading lessons with her mother as “practical observation lessons in the art of beadwork” and indicates that she sat “close beside” her mother while observing her beadwork, the author provides no indication in the paragraph that she was determined to behave according to her mother’s standards or that she sought her mother’s approval.
 - D. **CORRECT.** In paragraph 3, the author describes her mother’s artistry and craftsmanship by using language such as “skillfully threaded,” “picking up the tiny beads one by one,” and “twisting it carefully after every stitch.” These close observations indicate that the author greatly admired her mother’s mastery of her craft and the precision that went into every detail of her work.

46. The question asks which sentence best summarizes the process of beading that is described in the excerpt.
- E. Incorrect. In paragraphs 2 and 3, the author describes how at the beginning of the process her mother “smoothed out a double sheet of soft white buckskin” on a lapboard (paragraph 2) and how she strings the beads into a pattern. However, this sentence does not describe the steps that take place between the preparation and the stringing of the beads. Thus, this sentence does not best summarize the beading process.
 - F. Incorrect. In paragraphs 2 and 3, the author describes the process her mother uses to string the beads with “the point of her thread, always twisting it carefully after every stitch” (paragraph 3). While this sentence includes some of the steps in the beading process, it does not describe the preparation that must take place before beginning the task, namely spreading the beads and the buckskin out on a table. Thus, this sentence does not best summarize the beading process.
 - G. **CORRECT.** This sentence best summarizes the process of beading that is described in the excerpt because it includes details about each step in the process. In paragraph 2, the author explains how her mother “spread upon a mat beside her bunches of colored beads” and how “on a lapboard she smoothed out a double sheet of soft white buckskin; and drawing from a beaded case that hung on the left of her wide belt a long, narrow blade, she trimmed the buckskin into shape.” The author continues her description in paragraph 3, stating, “From a skein of finely twisted threads of silvery sinews my mother pulled out a single one. With an awl she pierced the buckskin, and skillfully threaded it with the white sinew. Picking up the tiny beads one by one, she strung them with the point of her thread, always twisting it carefully after every stitch.”
 - H. Incorrect. In paragraphs 2 and 3, the author describes the process her mother uses as she “smoothed out a double sheet of soft white buckskin” (paragraph 2) on a lapboard before stringing the beads. While this sentence includes most of the steps in the beading process, it excludes the step of piercing the buckskin. This sentence also provides few details about the process of beading and uses vague wording to describe each step. Therefore, the sentence does not best summarize the beading process.

- 47.** The question asks how the idea that mastering moccasin design and creation requires experience is best illustrated in the excerpt.
- A. CORRECT.** In paragraph 6, the author states that when she became more familiar with elements of design, “a harder lesson was given me.” According to the author, sewing on porcupine quills is a much more difficult task to master because it requires experience in handling the poisonous porcupine quills, which is why her mother told her not to “do much alone in quills” until she was older (paragraph 6). This information best illustrates the idea that mastering moccasin design and creation requires experience.
 - B.** Incorrect. Although the author provides detailed descriptions of the materials used to make decorated moccasins (“colored beads” [paragraph 2]; “a skein of finely twisted threads of silvery sinews” [paragraph 3]; “tinted porcupine quills, moistened and flattened between the nails of the thumb and forefinger” [paragraph 6]), these descriptions do not illustrate the experience that is needed to gain mastery of moccasin design and creation.
 - C.** Incorrect. Although the author describes the color combinations she used in making moccasins (“I was pleased with an outline of yellow upon a background of dark blue, or a combination of red and myrtle-green. There was another of red with a bluish-gray that was more conventionally used” [paragraph 6]), this information mainly illustrates the author’s satisfaction with her moccasin design, not the importance of experience in mastering the creation and design of moccasins.
 - D.** Incorrect. In paragraph 7, the author tells of using a sharpened rod to spear gum from trees. She explains that she and her playmates used the rods to “[pry] up certain sweet roots” to find the gum. The detail of the sharpened rod is from a recollection about the playtime that followed the “confining lessons” of moccasin making. However, the sharpened rod was not used to create moccasins.

- 48.** The question asks how the author distinguishes her point of view from that of her mother.
- E.** Incorrect. In paragraph 4, the author explains that “it took many trials before I learned how to knot my sinew thread on the point of my finger, as I saw her do” and that the “difficulty was in keeping my thread stiffly twisted, so that I could easily string my beads upon it.” Although this explanation describes the author’s difficulty in performing the same task as her mother, it does not distinguish her point of view from that of her mother. In fact, they seem to share the same point of view regarding the importance of the technique the author is attempting to learn.
 - F. CORRECT.** In paragraph 5, the author distinguishes her point of view from that of her mother by describing their approaches to beadwork design. In the paragraph, the author states, “I usually drew easy and simple crosses and squares” and that “my original designs were not always symmetrical nor sufficiently characteristic, two faults with which my mother had little patience.” The author also distinguishes her point of view from that of her mother by stating that “the quietness of [my mother’s] oversight made me feel strongly responsible and dependent upon my own judgment.”
 - G.** Incorrect. In paragraph 6, the author states, “My mother cut off the prickly ends and burned them at once in the centre fire. These sharp points were poisonous, and worked into the flesh wherever they lodged. For this reason, my mother said, I should not do much alone in quills until I was as tall as my cousin Warca-Ziwin.” Although these instructions explain the importance of having experience and skill when working with quills, they do not distinguish the author’s point of view from that of her mother.
 - H.** Incorrect. In paragraph 7, the author describes her beadwork lessons as “confining” and states that she liked to roam “over the hills” with her playmates after the lessons. However, she makes no mention of her mother in paragraph 7; the activities and ideas stated there belong to the author, not the mother.

49. The question asks which sentence best describes how the sentence from paragraph 7 fits into the overall structure of the excerpt.
- A. Incorrect. Though the author feels humiliated “when some boldness of mine drew forth a rebuke from” her mother (paragraph 5) and characterizes her lessons with her mother as “confining” (paragraph 7), the overall passage does not portray a demanding relationship between the author and the mother. The shift introduced in the sentence from paragraph 7 is not from one of the author’s relationships to another; it is from work to play.
 - B. Incorrect. In paragraph 6, the author explains how working with porcupine quills is difficult because the “sharp points were poisonous, and worked into the flesh wherever they lodged.” Although this sentence suggests that working with porcupine quills was challenging, the sentence from paragraph 7 does not signal a change from the challenging aspects of life on the reservation to the advantages of living on the prairie. Most of paragraph 6 describes the author’s pleasure in creating designs in different colors.
 - C. **CORRECT.** In the sentence from paragraph 7, the author refers to her beadwork lessons as “confining” and states that after the lessons, she “was wild with surplus spirits” and “found joyous relief” in being outside and running around. The phrases “surplus spirits” and “joyous relief” highlight a sense of freedom that stands in strong contrast to the “confining” nature of the author’s beadwork lessons, which required intense focus and control.
 - D. Incorrect. In paragraph 7, the author describes how “many a summer afternoon” after her beadwork lessons, she and her friends used “a light sharpened rod” to gather “sweet roots” and “little crystal drops of gum.” She then explains that they later “tossed away our gum, to return again to the sweet roots.” However, the sentence from paragraph 7 does not conclude the progression of events in the narrative by describing the sequence of events at the end of the author’s day; the sentence appears at the beginning of paragraph 7 and provides a contrast with events from the previous paragraph.

- 50.** The question asks how the table after paragraph 7 expands upon a central idea in the excerpt.
- E. CORRECT.** The table provides the chronology from the 1500s, when the Dakota created beadwork using “beads made from bones, shells, stones, and animal teeth,” to the 1830s, when the Dakota began “using glass beads,” and the 1900s, when they created items to “sell outside their community.” Thus, the table helps expand on a central idea by showing that the craft the author was learning is a tradition that has endured through many generations.
 - F.** Incorrect. Although the table shows that the Dakota used “beads made from bones, shells, stones, and animal teeth” in the 1500s and that by the 1830s began “using glass beads in clothing, artwork, and decorations in place of Native-made beads,” it does not provide any information about the type of materials used by the author’s family.
 - G.** Incorrect. While the information included in the table states that “European traders [brought] glass beads to North America” in the 1500s and that by the 1920s the Dakota created “items to sell outside their community,” there is no mention of whether the uniqueness of Dakota beadwork was recognized in Europe.
 - H.** Incorrect. The table indicates that by the late 1600s the Dakota began trading with French traders from Europe who brought glass beads to the Americas and that by 1830 the Dakota were “using glass beads in clothing, artwork, and decorations in place of Native-made beads.” However, the table provides no information about whether this work incorporated color. Therefore, the table does not show that the author was able to incorporate color into her craftwork as a result of trade with other peoples.
-

Excerpt from “Niagara Falls”

- 51.** The question asks for a specific detail from paragraph 2 that conveys the central idea that the Falls communicate a feeling of “unintelligible disaster” (paragraph 1).
- A.** Incorrect. Although the author describes the water as “richly diaphanous as a precious stone” and states that it “glow[s] from within with a deep, inexplicable light” in paragraph 2, the comparison does not convey the central idea that the Falls communicate a feeling of “unintelligible disaster” (paragraph 1); rather, the description communicates a feeling of awe.
 - B.** Incorrect. The details in paragraph 2 about the flow of colors in the water are described as an “ever-altering wonder,” which conveys a sense of beauty, not a sense of disaster.
 - C.** Incorrect. The rainbows in paragraph 2 are described as “vivid” and accompanying someone “courteously” while he or she walks, which contributes to the idea that the appearance and disappearance of the rainbows are a pleasant experience and not disastrous.
 - D. CORRECT.** The sound of falling is described in paragraph 2 as “a noise of unspecified ruin,” so this option is correct because it best connects with the idea of “unintelligible disaster” mentioned in paragraph 1.

- 52.** The question asks for the effect of the comparison being made in the sentence in paragraph 2.
- E.** Incorrect. Neither “lacework and woven foam” (paragraph 2) nor the quality of being extremely level are related to timelessness.
 - F.** Incorrect. Although the author states in paragraph 1 that “the real secret of the beauty and terror of the Falls is not their height or width, but the feeling of colossal power,” the purpose of comparing the American Falls to a “long curtain of lacework and woven foam” in paragraph 2 is not to explain the secretive nature of the Falls but rather to describe their beauty and uniformity.
 - G. CORRECT.** The word “lacework” in the sentence from paragraph 2 suggests an elegant piece of craftsmanship, and the “one long curtain” and “extraordinarily level” aspects of the Falls mean that the Falls are uniform or consistent.
 - H.** Incorrect. Although the author states in paragraph 1 that the Falls inspire a “feeling of colossal power,” in paragraph 2 the author describes the American Falls as “delicate and fragile.” Therefore, the purpose of the comparison in paragraph 2 is not to communicate the intense strength of the Falls.
-
- 53.** The question asks for the statement that best describes how the sentence from paragraph 3 fits into the overall structure of the excerpt.
- A.** Incorrect. Although in paragraph 2 the author describes the beauty of the Falls as both an “ever-altering wonder” and an “assault of wind and spray,” in paragraph 3 the author does not signal a change from the positive aspects of the Falls to the negative aspects. Instead, the author provides a description of the river and the rapids below the Falls.
 - B.** Incorrect. While the author compares the water of the river to “a slipping floor of marble, green with veins of dirty white, made by the scum that was foam” in paragraph 3, the statement that the lower rapids are “more terrifying than the Falls, because less intelligible” does not indicate a progression from the literal description of the water to a discussion of timeless truths. Instead, the author is merely describing all aspects of the rapids, both literally and figuratively.
 - C. CORRECT.** The first sentence of paragraph 3 moves the description “beyond the foot of the Falls” to “the river” and then the paragraph begins to describe this location in further detail (“a dull sage green,” “hurries more swiftly,” “smooth and ominous,” “waters boil and eddy”) before reinforcing this shift by confirming it again with the words “These are the lower rapids, a sight more terrifying than the Falls.”
 - D.** Incorrect. Although the author states that the waters of the rapids “boil and eddy” and suggests that the rapids are “less intelligible,” these statements do not introduce a contrast between the obvious and the hidden features of the rapids. They merely describe a feature and the sight of the lower rapids.

- 54.** The question asks for the sentence from the excerpt that best supports the idea that the essence of the Falls lies in their emotional impact.
- E. CORRECT.** The first sentence in the excerpt establishes that “the real secret of the beauty and terror of the Falls” lies in “the feeling of colossal power and of unintelligible disaster.” This option states that “if that [feeling] were taken away, . . . the heart would be gone,” meaning that the emotional impact of the Falls is essential.
 - F.** Incorrect. While “delicate” and “fragile” are words that can be connected with certain kinds of emotions, in the sentence in the option they are connected with physical beauty.
 - G.** Incorrect. While the sentence in the option describes the power of the Falls to engage one in thought, it does not best support the idea that the essence of the Falls lies in their emotional impact.
 - H.** Incorrect. The sentence in the option describes thoughts one may have while watching the Falls and is not focused on the Falls’ emotional impact.
-
- 55.** The question asks how the sentence from paragraph 4 contributes to the development of ideas in the excerpt.
- A.** Incorrect. The sentence focuses on the idea that the Falls are a great place for contemplation but does not clarify that these thoughts are life-changing.
 - B.** Incorrect. The sentence does not describe focused thoughts of a personal nature; the grand, sweeping nature of the Falls inspires thoughts of the same caliber as “the passage of empires.”
 - C.** Incorrect. The sentence is about how the Falls inspire great thoughts but is not about how difficult it is to grasp the grandeur of the Falls.
 - D. CORRECT.** The description of “cloudy thoughts of destiny and the passage of empires” in the sentence refers to the types of thoughts a person might have while observing the Falls.

- 56.** The question asks how the discussion of human life and history is illustrated in paragraph 4 of the excerpt.
- E.** Incorrect. In paragraph 4, the author compares the rainbows visible in the Falls to “the arts and beauty,” which share the rainbows’ dependence on “the stream of life” that is “caused by it, thrown upon its spray, but unable to stay or direct or affect it, and ceasing when it ceased.” This comparison does not illustrate the idea that human life and history travel toward the same ending but rather that art and beauty, like human beings, are unable to “stay or direct or affect” their ultimate fate.
 - F. CORRECT.** The author concludes in paragraph 4 that the Falls can be compared to people and history by writing, “both men and nations are hurried onwards to their ruin or ending as inevitably as this dark flood.”
 - G.** Incorrect. Although in paragraph 4 the author states, “One is drawn back, strangely, to a contemplation of the Falls” and provides an account of “a friend, who said that the rainbows over the Falls were like the arts and beauty and goodness, with regard to the stream of life,” the author does not provide details to show that every observer’s experience with the Falls is different. Rather, the author explains that “the Victorian lies very close below the surface in every man” (paragraph 4).
 - H.** Incorrect. While the setting at night does provide a place of contemplation, the author notes the “dark flood” as the overall illustration of the human experience.
-

- 57.** The question asks for the statement the author would agree with most.
- A. CORRECT.** In paragraph 4, the author states that the Falls make a person feel “with an almost insupportable and yet comforting certitude, that both men and nations are hurried onwards to their ruin or ending.” Later, the final sentence says, “With some such thoughts does the platitudinous heart win from the confusion and thunder of a Niagara peace.”
 - B.** Incorrect. Although in paragraph 4 the author states that “one can sit and let great cloudy thoughts of destiny and the passage of empires drift through the mind; for such dreams are at home by Niagara” and that “a man’s life is of many flashing moments,” the author does not suggest that one will always have regrets no matter where one’s path goes in life.
 - C.** Incorrect. While the excerpt discusses fear when experiencing the power of the Falls, the excerpt does not support the idea that one should defy fear.
 - D.** Incorrect. The excerpt states in paragraph 4 that art is “unable to stay.”

- 58. (-0.8)** First distribute $\frac{3}{5}$ over $(2x + 5)$ to get the expression $\frac{6}{5}x + 3 - 2x$.

In order to combine the like terms, first express $-2x$ as $-\frac{10}{5}x$ and then add the like terms.

$$\frac{6}{5}x + 3 + \left(-\frac{10}{5}x\right) = -\frac{4}{5}x + 3.$$

The coefficient of x is $-\frac{4}{5}$.

When expressed as a decimal, $-\frac{4}{5} = -0.8$.

- 59. (5)** There will be 5 different outcomes with a sum of 6.

$$1 + 5 = 6$$

$$2 + 4 = 6$$

$$3 + 3 = 6$$

$$4 + 2 = 6$$

$$5 + 1 = 6$$

- 60. (95)** First, find the perimeter of the figure.

Two sides do not have labels. Because the top of the figure measures 13 cm and the bottom shows a length measuring 8 cm, the horizontal side without a label measures 5 cm ($13 - 8$).

Because the left side of the figure measures 6 cm and the right side shows a length measuring 3 cm, the vertical side without a label measures 3 cm ($6 - 3$).

So the total perimeter of the scale drawing is

$$13 + 3 + 5 + 3 + 8 + 6 = 38 \text{ cm}$$

Use the scale to find the perimeter of the actual garden.

$$\frac{1 \text{ cm}}{2.5 \text{ m}} = \frac{38 \text{ cm}}{p \text{ m}}$$

$$p = 2.5 \times 38 = 95$$

- 61. (21)** The 11:00 a.m. temperature is 3.5 times greater than the 9:00 a.m. temperature. The 9:00 a.m. temperature was 4° F .

$$4 \times 3.5 = 14$$

The temperature increased from -7° F at 5:00 a.m. to 14° F at 11:00 a.m., which is an increase of 21° F .

- 62.** (32) The volume of a triangular prism is found by multiplying the area of the triangular base by the height of the prism.

The area of the triangular base of the prism is $\frac{1}{2}bh = \frac{1}{2}(4)(8) = 16$.

The height of the triangular prism is 2 inches.

So the volume of the triangular prism, in cubic inches, is $16 \cdot 2 = 32$.

- 63.** (A) The x -axis represents the length of the pole, in feet, and the y -axis represents the weight of the pole, in ounces.

The point (1, 4) means that a 1-foot pole would weigh 4 ounces.

Since the graph is linear, this shows that for every 1 foot of length, the pole weighs 4 additional ounces.

So the unit rate is 4 ounces per foot.

- 64.** (F) Find the sum of $2.5 + (-4.5)$.

$$2.5 + (-4.5) = 2.5 - 4.5 = -2$$

Point B is located at -2 .

65. (C) $\frac{9}{2x} = \frac{3y}{8}$

$$9 \times 8 = 72$$

$$2x \times 3y = 6xy$$

$$72 = 6xy$$

$$12 = xy$$

Since 72 divided by 6 is 12, the product of x and y equals 12.

- 66.** (E)

$$15,600 \times 12\% = 15,600 \times 0.12 = 1,872$$

$$15,600 - 1,872 = 13,728$$

67. (B) $4\frac{2}{3} \div 2\frac{1}{2} = \frac{14}{3} \div \frac{5}{2} =$

$$\frac{14}{3} \times \frac{2}{5} = \frac{28}{15} = 1\frac{13}{15}$$

- 68.** (F) Since the ratio of assistants to players is $\frac{1}{6}$, that means

$$\frac{1}{6} = \frac{x}{36}$$

$$\frac{36}{6} = x$$

$$6 = x$$

There are a total of 6 assistants.

The ratio of coaches to assistants is then

$$\frac{3}{6} = \frac{1}{2}$$

-
- 69.** (A) If each post is 10 feet long and $3\frac{1}{3}$ feet of the post is below ground, then the difference between the two amounts is the height of the post that is above ground.

$$10 - 3\frac{1}{3}$$

$$\frac{10}{1} - \frac{10}{3}$$

$$\frac{30}{3} - \frac{10}{3} = \frac{20}{3} = 6\frac{2}{3} \text{ feet}$$

- 70.** (F) First substitute 2 for r in the equation.

$$p + 2r = r(p + 1) + 1$$

$$p + 2(2) = 2(p + 1) + 1$$

Then solve for p .

$$p + 2(2) = 2(p + 1) + 1$$

$$p + 4 = 2p + 2 + 1$$

$$p + 4 = 2p + 3$$

$$p + (4 - 3) = 2p + (3 - 3)$$

$$p + 1 = 2p$$

$$(p - p) + 1 = 2p - p$$

$$1 = p$$

The value of p is 1.

71. (B) First, determine the rate at which Martina reads, in pages per day, using the rate at which Karen reads, 60 pages per day.

$$60 + 60 \cdot \frac{25}{100} = 60 + 60 \cdot 0.25 =$$
$$60 + 15 = 75$$

Next, determine the number of days it will take each person to complete the 1,500-page reading assignment.

$$\text{Karen: } \frac{1,500 \text{ pages}}{k \text{ days}} = \frac{60 \text{ pages}}{1 \text{ day}}$$

$$60k = 1,500$$

$$(60 \div 60)k = 1,500 \div 60$$

$$k = 25 \text{ days}$$

$$\text{Martina: } \frac{1,500 \text{ pages}}{m \text{ days}} = \frac{75 \text{ pages}}{1 \text{ day}}$$

$$75m = 1,500$$

$$(75 \div 75)m = 1,500 \div 75$$

$$m = 20 \text{ days}$$

Finally, determine the difference between the two numbers of days.

$$25 - 20 = 5$$

The answer is 5 days.

72. (H) Claire's goal is to run at least 2,500 meters, and she has already run 650 meters.

$$2,500 - 650 = 1,850$$

Claire has at least 1,850 meters left to run. Divide by the distance around the track to find the number of laps she needs to complete.

$$1,850 \div 120 \approx 15.417$$

Since she wants to run at least 2,500 meters, round 15.417 up to 16. Claire needs to run 16 laps to meet her goal.

73. (D) 2005 to 2010:

$$25\% = 0.25$$

$$200 \times 0.25 = 50$$

The 50 employees are added to 200. The new total number is 250.

2010 to 2015:

$$10\% = 0.10$$

$$250 \times 0.10 = 25$$

The 25 employees are added to 250. The total number of employees in 2015 is 275.

- 74.** (E) The probability of choosing a green candy is twice as great as the probability of choosing a red candy. There are 12 green candies.

$$12 = 2r$$

$$r = 6$$

So there are 6 red candies. 12 green candies + 4 yellow candies + 6 red candies = 22 total candies.

There are 4 yellow candies out of a total of 22 candies. The probability of choosing a yellow candy is

$$\frac{4}{22} = \frac{2}{11}$$

- 75.** (B) Since 100% means all customers,

$$100\% - 99.7\% = 0.3\%$$

Rewrite the percent as a decimal.

$$0.3\% = 0.003$$

Now rewrite the decimal as a fraction.

$$0.003 = \frac{3}{1,000}$$

- 76.** (E) There is a proportional relationship between the length of the race, x miles, and the number of water stations, y . The constant of proportionality is

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

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

Therefore, the equation $y = \frac{2}{3}x$ represents this relationship.

- 77.** (B) If half the undecided voters (half of 20) vote in favor of building the park, the total number of "yes" votes from the survey will be 152.

$$142 + 10 = 152$$

There are 24,100 voters, and 200 residents were surveyed. Set up a proportion to solve.

$$\frac{152}{200} = \frac{x}{24,100}$$

$$\frac{19}{25} = \frac{x}{24,100}$$

$$(24,100)\left(\frac{19}{25}\right) = x$$

$$18,316 = x$$

78. (E) All the numbers are negative, so they are all less than zero. Consider the absolute value of each number and where it falls on a number line. The negative number closest to 0 will be the greatest.

The negative number with the greatest absolute value is -49 , so it has the least value.

The negative number with the next greatest absolute value is -1 , so it would fall next in order from least to greatest.

$-49, -1$

Compare the absolute values of

$-\frac{1}{49}$ and $-\frac{1}{7}$.

$$\frac{1}{49} < \frac{1}{7}$$

Therefore, the numbers listed from least to greatest are:

$-49, -1, -\frac{1}{7}, -\frac{1}{49}$

$-\frac{1}{49}$ is the greatest.

79. (C) Calculate the decimal equivalent of

$$-\frac{13}{11}$$

$$-\frac{13}{11} = -1.18181818... = -1.\overline{18}$$

80. (H) Each loaf of bread requires $\frac{1}{5}$ ounce of salt. Therefore, the baker can make 5 loaves of bread with 1 ounce of salt.

Multiply to find the number of loaves that can be made with 40 ounces of salt.

$$5 \times 40 = 200$$

81. (D) First, subtract to simplify.

$$\frac{1\frac{5}{7} - 1\frac{6}{7}}{3\frac{4}{7} - 3\frac{6}{7}} = \frac{-\frac{1}{7}}{-\frac{2}{7}} =$$

Follow the process for dividing fractions:

$$\left(-\frac{1}{7}\right) \times \left(-\frac{7}{2}\right) = \frac{7}{14} = \frac{1}{2}$$

- 82. (F)** Split the compound inequality into two inequalities.

$$-5 \leq 1 - 3x \quad \text{and} \quad 1 - 3x \leq 4$$

For each inequality, subtract 1 from each side.

$$-6 \leq -3x \quad \text{and} \quad -3x \leq 3$$

For each inequality, divide both sides by -3 . Note that dividing each side of an inequality by a negative number changes the direction of the inequality.

$$2 \geq x \quad \text{and} \quad x \geq -1$$

Combining the pieces gives the compound inequality $-1 \leq x \leq 2$.

The solution is that x is greater than or equal to -1 and less than or equal to 2 , so choose the graph with filled circles at -1 and 2 , with the filled segment between the circles.

- 83. (D)** Set up a proportion:

$$\frac{1 \text{ sind}}{0.75 \text{ plunk}} = \frac{x \text{ sinds}}{8 \text{ plunks}}$$

$$1(8) = 0.75x$$

$$8 = \frac{75}{100}x$$

$$8 = \frac{3}{4}x$$

$$8\left(\frac{4}{3}\right) = x$$

$$\frac{32}{3} = x$$

$$10\frac{2}{3} = x$$

$$10.67 \approx x$$

-
- 84. (F)** $8x - (7 + 2.5x) + 2$

First, distribute -1 over $7 + 2.5x$.

$$8x - 7 - 2.5x + 2$$

Then combine the like terms.

$$5.5x - 5$$

The simplified form of the expression is

$$5.5x - 5.$$

85. (B) 3 bicycles every 4 hours = 3 bicycles every 240 minutes (4×60 min)

$$240 \text{ min} \div 3 \text{ bicycles} = 80 \text{ min per bicycle}$$

$$5 \text{ bicycles} \times 80 \text{ min} = 400 \text{ min}$$

$$\frac{400 \text{ min}}{60 \text{ min/hr}} = \frac{20}{3} \text{ hr} = 6\frac{2}{3} \text{ hr}$$

$$\frac{2}{3} \times 60 \text{ min} = 40 \text{ min}$$

$$6\frac{2}{3} \text{ hr} = 6 \text{ hr } 40 \text{ min}$$

86. (G) Jar Q contains 12 balls, and the probability of drawing a yellow ball at random is $\frac{1}{3}$.

$$\frac{1}{3} \times 12 = 4$$

There are 4 yellow balls in Jar Q.

Jar R contains 8 balls, and the probability of drawing a yellow ball at random is $\frac{3}{4}$.

$$\frac{3}{4} \times 8 = 6$$

There are 6 yellow balls in Jar R.

Jar S contains all the balls from Jar Q and Jar R.

$$12 + 8 = 20$$

There are 20 balls in Jar S.

$$4 + 6 = 10$$

There are 10 yellow balls in Jar S.

$$\frac{10}{20} \div \frac{10}{20} = \frac{1}{2}$$

The probability of drawing a yellow ball at random from Jar S is $\frac{1}{2}$.

- 87. (D)** The ratio of pretzels to raisins in Gia's bag of snack mix, 12:9, is equivalent to the ratio of pretzels to raisins in Trevon's bag, 16:12.

$$\frac{12}{9} = \frac{16}{12} = \frac{4}{3}$$

- 88. (G)** First, substitute $4x$ for each y in the expression.

$$3y + 2(3y + 5) - x =$$

$$3(4x) + 2[3(4x) + 5] - x$$

Then simplify the expression.

$$3(4x) + 2[3(4x) + 5] - x$$

$$12x + 2(12x + 5) - x$$

$$12x + 24x + 10 - x$$

$$12x + 24x - x + 10$$

$$35x + 10$$

The simplified expression is $35x + 10$.

- 89. (C)** The formula for area of a circle is $A = \pi r^2$.

The radius of a circle is half its diameter.

The diameter is given for each circle.

$$18 \div 2 = 9, \text{ and } 12 \div 2 = 6$$

$$9^2\pi - 6^2\pi = (81 - 36)\pi = 45\pi$$

- 90. (F)** First, determine 10% of $|x|$.

$$0.10 \cdot |x| = 0.10 \cdot |-4| = 0.10 \cdot 4 = 0.4$$

Then determine the sum of x and 10% of $|x|$.

$$-4 + 0.4 = -3.6$$

The sum is -3.6 .

- 91. (A)** The volume of a cube is $V = s^3$, where s is the length of one edge.

$$\text{So } 512 = s^3, \text{ and } s = \sqrt[3]{512}.$$

If you are not sure how to find the cube root, you can estimate.

We know $10 \times 10 \times 10 = 10^3 = 1,000$, so $\sqrt[3]{1,000} = 10$.

Since 512 is less than 1,000, the answer must be less than 10. The only given option less than 10 is 8. Double-check to make sure this is correct:

$$8^3 = 8 \times 8 \times 8 = 512.$$

- 92. (F)** The temperature on Tuesday was 84° F, which was 5% higher than the temperature on Monday.

This can be represented by the equation $84 = 1.05x$.

Dividing both sides of this equation by 1.05 gives $x = 80$.

Therefore, the temperature on Monday was 80° F.

Since the temperature on Wednesday was 10% lower than the temperature on Monday, the difference between the two temperatures would equal $(10\%)(80) = 8$.

-
- 93. (B)** First, determine all possible factors of 168. One method of doing this is to use a table to list pairs of factors.

Factors of 168	
1	168
2	84
3	56
4	42
6	28
7	24
8	21
12	14

Then determine the group of three sequential factors, $(n - 1)$, n , and $(n + 1)$, where n is as large as possible. This group is 6, 7, and 8, where $n = 7$.

- 94. (E)** The total number of days (86) is divided by the number of days in a week (7).

$$86 \div 7 = 12, \text{ with a remainder of } 2$$

The 2 days are counted back from Tuesday, so the first performance was on a Sunday.

-
- 95. (C)** Add the taxes to the amount of the check to find Michael's total pay before taxes were deducted.

$$213 + 32 = 245$$

Divide the total pay by the number of hours to find the hourly pay rate.

$$245 \div 20 = 12.25$$

-
- 96. (G)** To find surface area, use the formula $A = 2(hw + hl + lw)$.

$$A = 2[(20 \times 40) + (20 \times 50) + (50 \times 40)]$$

$$A = 2(800 + 1,000 + 2,000)$$

$$A = 2(3,800)$$

$$A = 7,600 \text{ sq cm}$$

97. (C) The value of the car decreased \$5,000 in two years: \$15,000 to \$10,000.

$$5,000 \div 2 = 2,500$$

Therefore, the value of the car decreases \$2,500 each year. After 3 years, the car's value decreased \$7,500.

$$\text{So } 7,500 + 15,000 = 22,500.$$

-
98. (F) Assuming Alana picks 4 blue disks in a row, the number of blue disks and the total number of disks both decrease by 1 after each selection.

At the beginning, there are 4 blue disks out of 9 total disks, so the probability of selecting the first blue disk is $\frac{4}{9}$.

The probabilities of selecting blue for the next three selections are $\frac{3}{8}$, $\frac{2}{7}$, and $\frac{1}{6}$.

$$\frac{4}{9} \times \frac{3}{8} \times \frac{2}{7} \times \frac{1}{6} = \frac{24}{3,024} = \frac{1}{126}$$

99. (A) Rewrite the percent as a decimal:

$$\frac{1}{2}\% = 0.5\% = 0.005$$

So the correct answer must **not** equal 0.005.

Option A

$$\frac{0.005}{100} = 0.00005$$

Option B

$$\frac{\frac{1}{2}}{100} = 0.5 \div 100 = 0.005$$

Option C

$$\frac{5}{1,000} = 0.005$$

Option D

$$\frac{1}{200} = 0.005$$

Therefore, Option A is the correct answer. All answer options equal 0.005, except for Option A.

100. (H) To find out how many members there were in 2002, calculate 40% of 50 and then add it to 50.

$$50 \times 0.40 = 20$$

$$20 + 50 = 70 \text{ members}$$

To find out how many members there were in 2003, calculate 40% of 70 and then add it to 70.

$$70 \times 0.40 = 28$$

$$28 + 70 = 98 \text{ members}$$

To find out how many members there were in 2004, calculate 40% of 98 and then add it to 98.

$$98 \times 0.40 = 39.2$$

The result is 39.2, which is rounded to 39 to keep members to the nearest whole number.

$$39 + 98 = 137 \text{ members}$$

101. (D) $6x - 20 < 5x - 2(5 - 3x)$

Distribute the coefficient -2 on the right-hand side.

$$6x - 20 < 5x + (-2)(5) + (-2)(-3x)$$

$$6x - 20 < 5x - 10 + 6x$$

Subtract $6x$ from both sides.

$$-20 < 5x - 10$$

Add 10 to both sides.

$$-10 < 5x$$

Divide both sides by 5.

$$-2 < x$$

which is equivalent to

$$x > -2$$

102. (G) The ratio is red:white:blue = 2:5:3.
Find the number of each color in a box of 30 paper clips.

$$2x + 3x + 5x = 30$$

$$10x = 30$$

$$x = 3$$

$$\text{Red: } 2x = 2(3) = 6$$

$$\text{White: } 5x = 5(3) = 15$$

$$\text{Blue: } 3x = 3(3) = 9$$

If one paper clip of each color is removed (3 total), there will be 8 blue paper clips out of 27 in the box. The probability that the next paper clip chosen will be blue is $\frac{8}{27}$.

103. (B) Each option is divisible by 1, 2, 3, 4, 5, and 6.

Option A:

1,680 is evenly divisible by the first 8 positive integers.

Option B:

840 is evenly divisible by the first 8 positive integers and is less than 1,680.

Option C:

480 is not evenly divisible by 7.

$$480 \div 7 = 68.57$$

Option D:

420 is not evenly divisible by 8.

$$420 \div 8 = 52.5$$

Option B (840) is the correct answer.

- 104. (F)** One method of solving the problem is to use a table to represent the sample space. Let the three colors be red, blue, and green.

Window Color	Door Color	Wall Color
Red	Blue	Green
Red	Green	Blue
Blue	Red	Green
Blue	Green	Red
Green	Red	Blue
Green	Blue	Red

There are 6 possible combinations of the window color, the door color, and the porch color where no two parts are painted the same color.

- 105. (D)** Similar geometric figures have sides that are proportional.

$$\frac{10}{6} = \frac{x}{9}$$

$$\frac{5}{3} = \frac{x}{9}$$

$$x = \frac{(5)(9)}{3} = 15$$

Because $MN = NP$, both unknown sides are equal to 15. Therefore, the three sides of MNP are 15, 15, and 10. The perimeter of a triangle is the sum of its three side lengths.

$$15 + 15 + 10 = 40$$

- 106. (G)** First analyze the role of each variable in the expression $x^2yz^3|w|$.

x^2 will always be a positive number.

y can be a positive or a negative number.

z^3 can be a positive or a negative number.

$|w|$ will always be a positive number.

Next consider each answer option based on the possible values of the variables.

Option E:

Making x and w positive will not necessarily make the value of the expression positive; it will depend on the values of y and z .

Option F:

Making x and w negative will not necessarily make the value of the expression positive; it will depend on the values of y and z .

Option G:

The expressions x^2 and $|w|$ will always be positive. Therefore, making the values of y and z negative would result in the expression yz^3 being positive, since a negative multiplied by a negative is positive. Thus the given product would always be positive.

Option H:

The expressions x^2 and $|w|$ will always be positive. Therefore, making the value of y negative and the value of z positive would result in the expression yz^3 being negative, since a negative multiplied by a positive is negative. Thus the given product would always be negative.

107. (B) Use the joint probability formula $P(\text{black shirt first}) \cdot P(\text{red shirt second, given black shirt first})$.

Initially there are 3 black shirts out of 6 total shirts, so the probability of picking a black shirt first is $\frac{3}{6}$.

Once a black shirt is picked first, there is 1 red shirt out of 5 total shirts remaining.

So the probability of picking a red shirt second, given that a black shirt was picked first, is $\frac{1}{5}$.

Then $P(\text{black shirt first}) \cdot P(\text{red shirt second, given black shirt first})$

$$= \frac{3}{6} \cdot \frac{1}{5} = \frac{3}{10} = \frac{1}{10}.$$

108. (E) The volume of a cube with a side length of s is

$$V = s^3$$

Since 125 small cubes were used to build the large cube, $125 = s^3$.

Each side of the large cube is made up of 5 small cubes.

$$125 = 5^3$$

Since 5 small cubes make up each edge of the large cube, and each edge of the small cube measures 1 inch, the measure of each edge of the large cube is $1 \times 5 = 5$ inches.

109. (A) The probability of Davina picking an odd-numbered ball from Box B is $\frac{2}{3}$. If Davina places an odd-numbered ball in Box A, then the probability of Yusuf picking an odd-numbered ball from Box A is $\frac{1}{3}$. The probability of both of these events happening is the product of the two probabilities.

$$\frac{2}{3} \times \frac{1}{3} = \frac{2}{9}$$

110. (E) Since $|x + 1| \geq 2$, either $x + 1 \leq -2$ or $x + 1 \geq 2$.

Solving $x + 1 \leq -2$ for x gives $x \leq -3$.

Solving $x + 1 \geq 2$ for x gives $x \geq 1$.

A filled circle on a number line represents "or equal to." So the correct number line representation has filled circles at -3 and 1 , with the number line filled to the left of -3 for "less than" and to the right of 1 for "greater than."

111. (D) The area of the kitchen floor equals the product of 12 and 7.5.

$$12 \times 7.5 = 90$$

The area of each square tile is the product of 0.75 and 0.75.

$$0.75 \times 0.75 = \frac{3}{4} \times \frac{3}{4} = \frac{9}{16}$$

The number of tiles need to cover the floor is the quotient of 90 and $\frac{9}{16}$.

$$90 \div \frac{9}{16} = 90 \times \frac{16}{9} = 160$$

112. (E) First, determine the number of tickets sold on Sunday, x , using the total number of tickets sold on Saturday and Sunday, 30,000, and the number of tickets sold on Saturday, $4x$.

$$30,000 = 4x + x$$

$$30,000 = 5x$$

$$6,000 = x$$

Then determine the number of tickets expected to be sold on Monday, y , using the number of tickets sold on Sunday, 6,000.

$$6,000 = 3y$$

$$2,000 = y$$

The number of tickets expected to be sold on Monday is 2,000.

113. (C) The original area of the field was 4,000 square meters.

$$80 \times 50 = 4,000$$

When the field was enlarged, the length increased by 15%, so the new length is 92 meters.

$$80 \times 15\%$$

$$80 \times 0.15 = 12$$

$$80 + 12 = 92$$

The width increased by 10 meters, so the new width is 60 meters.

$$50 + 10 = 60$$

The new area of the field is 5,520 square meters.

$$92 \times 60 = 5,520$$

The percent increase is found by finding the difference between the two areas and dividing the increase by the original area.

$$5,520 - 4,000 = 1,520$$

$$1,520 \div 4,000 = 0.38 = 38\%$$

114. (E) Since x and y are both negative integers, both x^2 and y^2 are positive.

Therefore, both x^2y and xy^2 are negative, and both $-x^2y$ and $-xy^2$ are positive.

Because $x < y$ and both x and y are negative, $|y| < |x|$ and $y^2 < x^2$. So $|y^2| < |x^2|$.

Since $|y| < |x|$ and x and y are integers, $|xy^2| < |x^2y|$.

So $x^2y < xy^2$.

$$-xy^2 = |xy^2| \text{ and } -x^2y = |x^2y|$$

Therefore, $x^2y < xy^2 < -xy^2 < -x^2y$.

Answer Key for Sample Form B

1. A	14. H	27. A	40. H	53. C	66. E	79. C	92. F	105. D
2. E	15. C	28. F	41. C	54. E	67. B	80. H	93. B	106. G
3. B	16. G	29. C	42. G	55. D	68. F	81. D	94. E	107. B
4. G	17. B	30. E	43. A	56. F	69. A	82. F	95. C	108. E
5. B	18. H	31. C	44. H	57. A	70. F	83. D	96. G	109. A
6. F	19. B	32. F	45. D	58. -0.8	71. B	84. F	97. C	110. E
7. B	20. H	33. A	46. G	59. 5	72. H	85. B	98. F	111. D
8. G	21. C	34. E	47. A	60. 95	73. D	86. G	99. A	112. E
9. D	22. G	35. B	48. F	61. 21	74. E	87. D	100. H	113. C
10. G	23. D	36. H	49. C	62. 32	75. B	88. G	101. D	114. E
11. D	24. F	37. D	50. E	63. A	76. E	89. C	102. G	
12. E	25. A	38. H	51. D	64. F	77. B	90. F	103. B	
13. B	26. E	39. A	52. G	65. C	78. E	91. A	104. F	