

The New York City Department of Education
Specialized High Schools Admissions Test
Grade 8

General Directions

This test consists of 100 questions across two subjects, English Language Arts and Mathematics.

PART 1 — ENGLISH LANGUAGE ARTS
50 QUESTIONS

Questions 1-50

PART 2 — MATHEMATICS
50 QUESTIONS

Questions 51-100

Planning Your Time

- For practice tests with the timer enabled, your test session will end after 180 minutes.
- In a computer adaptive test (CAT), you must answer every question. For Math and stand-alone revising and editing questions, you will not be able to return to a question once you have advanced to the next question.
- ELA Reading Comprehension and Revising & Editing passage sets only:
 - For each passage set (a text and its related questions), you can return to the questions within the set and alter your responses; however, once you advance forward from the last question of that set, you will be unable to return to any questions in the set or change your answers.
- Do not spend too much time on any one question. If you are unsure, choose the response you think is best.
- You must complete the subject area you started with before moving on to the next subject area. Once you submit a subject area, you will be unable to return to it.

English Language Arts
READING COMPREHENSION

DIRECTIONS: Read each of the following texts and answer the related questions. As needed, you may use the online notepad tool or write on the scrap paper given to you to take notes. You should reread relevant parts of each text, while being mindful of time, before selecting the **best** answer for each question. Base your answers only on the content within the text.

Passage 1

Samuel Morse, an American inventor, is credited with creating the electronic telegraph, a communication device that allows users to send messages using a system of short and long pulses that represent letters, numbers, and punctuation. In 1844, the United States Congress passed the Telegraph Bill, which provided Morse with the funds to build an electric telegraph system.

Invention of the Telegraph

Earlier Signal Systems

- 1 Long before Samuel F. B. Morse electrically transmitted his famous message “What hath God wrought?” from Washington to Baltimore on May 24, 1844, there were signaling systems that enabled people to communicate over distances. Most were visual or “semaphore” systems using flags or lights. In the eighteenth century, such systems used an observer who would decipher a signal from a high tower on a distant hill and then send it on to the next station. The young American republic wanted just such a system along its entire Atlantic coast and offered a prize of \$30,000 for a workable proposal. The framers of this legislation¹ had no way of knowing that when they used the word “telegraph” to refer to this visual semaphore system, they would be offered an entirely new and revolutionary means of communication—electricity.

The Growth of an Idea

- 2 The idea of using electricity to communicate over distance is said to have occurred to Morse during a conversation aboard ship when he was returning from Europe in 1832. Michael Faraday’s recently invented electromagnet was much discussed by the ship’s passengers, and when Morse came to understand how it worked, he speculated that it might be possible to send a coded message over a wire. While a student at Yale College years before, he had written his parents a letter about how interesting he found the lectures on electricity. Despite what he had learned at Yale, Morse found when he began to develop his idea that he had little real understanding of the nature of electricity, and after sporadic attempts to work with batteries, magnets, and wires, he finally turned for help to a colleague at the University of the City of New York, Leonard D. Gale.
- 3 Gale was a professor of chemistry and familiar with the electrical work of Princeton’s Joseph Henry, a true pioneer in the new field. Well before Morse had his shipboard idea about a telegraph, Henry rang a bell at a distance by opening and closing an electric circuit. In 1831, he had published an article, of which Morse was unaware, that contained details suggesting the idea of an electric telegraph. Gale’s help and his knowledge of this article proved crucial to Morse’s telegraph system because Gale not only pointed out flaws in the system but showed Morse how he could regularly boost the strength of a signal and overcome the distance problems he had encountered by using a relay system Henry had invented. Henry’s experiments, Gale’s assistance, and, soon after, hiring the young technician Alfred Vail were keys to Morse’s success.

Obstacles and Opportunities

- 4 By December 1837, Morse had enough confidence in his new system to apply for the federal government’s appropriation, and during the next year he conducted demonstrations of his telegraph both in New York and Washington.

¹legislation: Telegraph Bill

- 5 However, when the economic disaster known as the Panic of 1837 took hold of the nation and caused a long depression, Morse was forced to wait for better times. It was during this period that Morse visited Europe again and tried not only to secure patent protection overseas but to examine competing telegraph systems in England. . . .
- 6 By 1843, the country was beginning to recover economically, and Morse again asked Congress for the \$30,000 that would allow him to build a telegraph line from Washington to Baltimore, forty miles away. The House of Representatives eventually passed the bill containing the Morse appropriation, and the Senate approved it in the final hours of that Congress's last session. With President Tyler's signature, Morse received the cash he needed and began to carry out plans for an underground telegraph line.

Realizing a Great Invention

- 7 Morse had hired the ingenious construction engineer Ezra Cornell to lay the pipe carrying the wire, and although Cornell did his job superbly, one of Morse's partners, Congressman F. O. J. Smith, had purchased wire with defective insulation. Too much time had been wasted laying bad wire, and with the project on a rigid deadline, something had to be done quickly. Cornell suggested that the fastest and cheapest way of connecting Washington and Baltimore was to string wires overhead on trees and poles. The desperate Morse gave the go-ahead, and the line was completed in time for the dramatic and spectacularly successful link between the Supreme Court chamber of the Capitol building and the railroad station in Baltimore.
- 8 Soon, as overhead wires connected cities up and down the Atlantic coast, the dots-and-dashes method² that recorded messages on a long moving strip of paper was replaced by the operator's ability to interpret the code in real time. . . . Telegraph lines soon extended westward, and within Morse's own lifetime they connected the continents of Europe and America.

"Invention of the Telegraph"—Public Domain/Library of Congress

²**dots-and-dashes method:** short and long pulses of Morse code

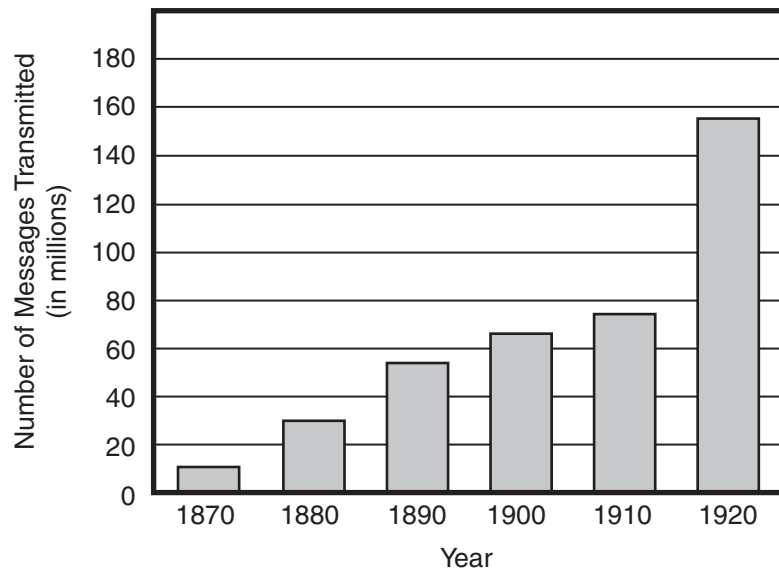
BRITISH ALL-RED TELEGRAPH LINE, 1902



KEY	
	= Electric telegraph line

The first transatlantic electric telegraph message was sent in 1858, and by 1902 the British All-Red Line connected most of the world.

TELEGRAPH MESSAGES TRANSMITTED, 1870-1920



Source: U.S. Bureau of the Census. *Historical Statistics of the United States, Colonial Times to 1970, Bicentennial Edition, Part 2*. Washington, D.C., 1975.

Samuel Morse, an American inventor, is credited with creating the electronic telegraph, a communication device that allows users to send messages using a system of short and long pulses that represent letters, numbers, and punctuation. In 1844, the United States Congress passed the Telegraph Bill, which provided Morse with the funds to build an electric telegraph system.

Invention of the Telegraph

Earlier Signal Systems

1 Long before Samuel F. B. Morse electrically transmitted his famous message “What hath God wrought?” from Washington to Baltimore on May 24, 1844, there were signaling systems that enabled people to communicate over distances. Most were visual or “semaphore” systems using flags or lights. In the eighteenth century, such systems used an observer who would decipher a signal from a high tower on a distant

The details of the section “The Growth of an Idea” convey a central idea of the passage by suggesting that

- A. the collaborative efforts of colleagues resulted in successful communication over a wire.
- B. a great deal of interest and work was devoted to understanding how to use electricity to send signals.
- C. Faraday’s invention of the electromagnet inspired the invention of the telegraph.
- D. colleges like Yale played a great role in making new discoveries about electricity and its applications.

Samuel Morse, an American inventor, is credited with creating the electronic telegraph, a communication device that allows users to send messages using a system of short and long pulses that represent letters, numbers, and punctuation. In 1844, the United States Congress passed the Telegraph Bill, which provided Morse with the funds to build an electric telegraph system.

Invention of the Telegraph

Earlier Signal Systems

1 Long before Samuel F. B. Morse electrically transmitted his famous message “What hath God wrought?” from Washington to Baltimore on May 24, 1844, there were signaling systems that enabled people to communicate over distances. Most were visual or “semaphore” systems using flags or lights. In the eighteenth century, such systems used an observer who would decipher a signal from a high tower on a distant

Which sentence is the **best** summary of how Morse obtained the funding necessary to build his telegraph system?

- A. Morse’s application for a federal grant was delayed until 1843, so he spent time traveling in Europe, where he concentrated on obtaining a patent for his system.
- B. Morse applied for a government grant that required both houses of Congress and the president to pass a bill awarding him \$30,000 for his telegraph project.
- C. Morse applied for a government appropriation and conducted telegraph demonstrations to show that his system could work, and after a delay caused by a financial depression, Congress approved the \$30,000 appropriation in 1843.
- D. Working with Gale and Vail allowed Morse to find flaws in Henry’s work and to develop his own ideas before applying for the federal government appropriation.

Samuel Morse, an American inventor, is credited with creating the electronic telegraph, a communication device that allows users to send messages using a system of short and long pulses that represent letters, numbers, and punctuation. In 1844, the United States Congress passed the Telegraph Bill, which provided Morse with the funds to build an electric telegraph system.

Invention of the Telegraph

Earlier Signal Systems

1 Long before Samuel F. B. Morse electrically transmitted his famous message “What hath God wrought?” from Washington to Baltimore on May 24, 1844, there were signaling systems that enabled people to communicate over distances. Most were visual or “semaphore” systems using flags or lights. In the eighteenth century, such systems used an observer who would decipher a signal from a high tower on a distant

Read this sentence from paragraph 7.

The desperate Morse gave the go-ahead, and the line was completed in time for the dramatic and spectacularly successful link between the Supreme Court chamber of the Capitol building and the railroad station in Baltimore.

The words “dramatic” and “spectacularly” in the sentence convey a

- A. sense of relief and fulfillment that the line was finished.
- B. sense of wonder and celebration that the telegraph line was accomplished.
- C. feeling of excitement about the future possibilities of the telegraph.
- D. feeling of confidence about being able to continue the work.

Samuel Morse, an American inventor, is credited with creating the electronic telegraph, a communication device that allows users to send messages using a system of short and long pulses that represent letters, numbers, and punctuation. In 1844, the United States Congress passed the Telegraph Bill, which provided Morse with the funds to build an electric telegraph system.

Invention of the Telegraph

Earlier Signal Systems

1 Long before Samuel F. B. Morse electrically transmitted his famous message “What hath God wrought?” from Washington to Baltimore on May 24, 1844, there were signaling systems that enabled people to communicate over distances. Most were visual or “semaphore” systems using flags or lights. In the eighteenth century, such systems used an observer who would decipher a signal from a high tower on a distant

How does the graph support the ideas in paragraph 8?

- A. It indicates how welcome the improvement of long-distance communication was in the United States.
- B. It provides evidence of the dramatic increase in the number of telegraph messages as Morse’s system expanded across the United States.
- C. It reveals that by the twentieth century millions of people had used the telegraph despite earlier hesitations about the system.
- D. It shows how improvements that allowed Morse code to be read in real time made relaying telegraph messages faster and increased the system’s usage.

Samuel Morse, an American inventor, is credited with creating the electronic telegraph, a communication device that allows users to send messages using a system of short and long pulses that represent letters, numbers, and punctuation. In 1844, the United States Congress passed the Telegraph Bill, which provided Morse with the funds to build an electric telegraph system.

Invention of the Telegraph

Earlier Signal Systems

1 Long before Samuel F. B. Morse electrically transmitted his famous message “What hath God wrought?” from Washington to Baltimore on May 24, 1844, there were signaling systems that enabled people to communicate over distances. Most were visual or “semaphore” systems using flags or lights. In the eighteenth century, such systems used an observer who would decipher a signal from a high tower on a distant

The idea that, in the mid-nineteenth century, the United States was mostly unaware of the possibilities of electricity is illustrated in the passage **mainly** through the

- A. description of the government’s initial desire to expand a semaphore signaling system that used either flags or lights along the Atlantic Coast.
- B. delay by the House of Representatives to pass the bill funding Morse’s telegraph line six years after he first applied for the appropriation.
- C. discussions of the newly invented electromagnet that sparked the idea of sending codes through wires.
- D. description of how an electric circuit could be closed to ring a bell at a distance.

Samuel Morse, an American inventor, is credited with creating the electronic telegraph, a communication device that allows users to send messages using a system of short and long pulses that represent letters, numbers, and punctuation. In 1844, the United States Congress passed the Telegraph Bill, which provided Morse with the funds to build an electric telegraph system.

Invention of the Telegraph


Earlier Signal Systems


1 Long before Samuel F. B. Morse electrically transmitted his famous message “What hath God wrought?” from Washington to Baltimore on May 24, 1844, there were signaling systems that enabled people to communicate over distances. Most were visual or “semaphore” systems using flags or lights. In the eighteenth century, such systems used an observer who would decipher a signal from a high tower on a distant

With which statement would the author **most likely** agree?

- A. Morse’s telegraph was successful because the wires were strung aboveground rather than underground as originally planned.
- B. Understanding the importance of Morse’s telegraph requires detailed knowledge of electrical systems.
- C. The implementation of Morse’s telegraph system was overly influenced by economic factors.
- D. Morse’s invention of the telegraph made a great stride toward better connecting people across the United States and across the world.

There are no more questions for this passage set.

Use the review button  to return to any questions about the passage you have just read.

Once you select the blue arrow  at the top of this screen, you will **not** be able to return to any questions about this passage.

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

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,

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”?

- A. It demonstrates the timelessness of the American Falls.
- B. It conveys the secretive nature of the American Falls.
- C. It illustrates the elegant uniformity of the American Falls.
- D. It communicates the intense strength of the American Falls.

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,

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.

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,

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

- A. “If that were taken away, there would be little visible change, but the heart would be gone.” (paragraph 1)
- B. “By comparison their beauty is almost delicate and fragile.” (paragraph 2)
- C. “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)
- D. “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)

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,

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.

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,

In paragraph 4, the idea that human life and history ultimately end in the same way is illustrated **mainly** through

- A. the discussion of how the rainbows visible in the Falls are like the art and beauty created by humankind.
- B. the comparison between the movement of water in the Falls and the human experience.
- C. the inclusion of details that show that every observer’s experience with the Falls is different.
- D. the acknowledgment that contemplating the Falls at night sparks an awareness of humankind’s destiny.

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,

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.

There are no more questions for this passage set.

Use the review button  to return to any questions about the passage you have just read.

Once you select the blue arrow  at the top of this screen, you will **not** be able to return to any questions about this passage.

Passage 3

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

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 wigwam 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 buckskin bag, my mother spread upon a mat

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

- A. the sadness that the author feels reflecting upon her former way of life.
- B. the enthusiasm with which the author approached her work indoors.
- C. the fond feelings that the author has toward her childhood experiences.
- D. the mix of emotions that the author feels toward her work and her mother.

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 wigwam 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 buckskin bag, my mother spread upon a mat

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.

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 wigwam 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 buckskin bag, my mother spread upon a mat

The author's use of sequence in paragraphs 1 and 2 contributes to the development of ideas in the excerpt by

- A. listing the many steps that are involved in the process of beading in order to explain its difficulty and complexity.
- B. conveying the importance of following the steps of the beading process in a precise order to work most efficiently.
- C. emphasizing the time required to fully prepare for and execute the many large and small tasks in the activity of beading.
- D. detailing each step in preparation for beading in order to highlight the author's enthusiasm for the work.

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 wigwam 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 buckskin bag, my mother spread upon a mat

Which sentence **best** summarizes the process of beading that is described in the excerpt?

- A. 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.
- B. 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.
- C. 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.
- D. 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.

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 wigwam 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 buckskin bag, my mother spread upon a mat

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.

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 wigwam 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 buckskin bag, my mother spread upon a mat

How does the author distinguish her point of view from that of her mother?

- A. by describing their techniques for knotting sinew thread (paragraph 4)
- B. by describing their approaches to beadwork design (paragraph 5)
- C. by stating her mother's instructions on working with quills (paragraph 6)
- D. by stating her mother's ideas about activities after lessons (paragraph 7)

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 wigwam 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 buckskin bag, my mother spread upon a mat


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.

There are no more questions for this passage set.

Use the review button  to return to any questions about the passage you have just read.

Once you select the blue arrow  at the top of this screen, you will **not** be able to return to any questions about this passage.

Bird Talk

by Carl Sandburg

And now when the branches were beginning to be heavy,
It was the time when they once had said, "This is the
beginning of summer."

The shrilling of the frogs was not so shrill as in the
5 first weeks after the broken winter;

The birds took their hops and zigzags a little more
anxious; a home is a home; worms are worms.

The yellow spreads of the dandelions and buttercups
reached across the green pastures.

10 *Tee whee* and *tee whee* came on the breezes, and the grackles
chuzzled their syllables.

And it was the leaves with a strong soft wind over them
that talked most of all and said more than any others
though speaking the fewest words.

15 It was the green leaves trickling out the gaunt nowhere
of winter, out on the gray hungry branches—

It was the leaves on the branches, beginning to be heavy,
who said as they said one time before, "This is the be-
ginning of summer."

20 We shall never blame the birds who come
where the river and the road make the Grand Crossing
and talk there, sitting in circles talking bird talk.

If they ask in their circles as to who is here
and as to who is not here and who used to be here,

25 Or if instead of counting up last year as against
this year, they count up this year as against next
year, and have their bird chatter about who is here
this year who won't be here next year,

We shall never blame the birds.

30 If I have put your face among leaf faces, child,
Or if I have put your voice among bird voices,
Blame me no more than the bluejays.

"Bird Talk" by Carl Sandburg—Public domain.

Bird Talk

by Carl Sandburg

And now when the branches were beginning to be heard
It was the time when they once had said, "This is the
beginning of summer."

5 The shrilling of the frogs was not so shrill as in the
first weeks after the broken winter;

The birds took their hops and zigzags a little more
anxious; a home is a home; worms are worms.

The yellow spreads of the dandelions and buttercups
reached across the green pastures.

10 *Tee whee* and *tee whee* came on the breezes, and the
chuzzled their syllables.

And it was the leaves with a strong soft wind over them
that talked most of all and said more than any other
though speaking the fewest words.

15 It was the green leaves trickling out the gaunt nowhere
of winter, out on the gray hungry branches—

It was the leaves on the branches beginning to be heard

Read lines 6–7 from the poem.

**The birds took their hops and zigzags a little more
anxious; a home is a home; worms are worms.**

What idea from the second stanza do the lines help develop?

- A. The birds are eager for the return of warmer months.
- B. The birds are most likely to thrive during the spring.
- C. The birds naturally adjust to the seasonal changes.
- D. The birds instinctively prepare for the future.

Bird Talk

by Carl Sandburg

And now when the branches were beginning to be heard
It was the time when they once had said, "This is the
beginning of summer."

5 The shrilling of the frogs was not so shrill as in the
first weeks after the broken winter;

The birds took their hops and zigzags a little more
anxious; a home is a home; worms are worms.

The yellow spreads of the dandelions and buttercups
reached across the green pastures.

10 *Tee whee* and *tee whee* came on the breezes, and the
chuzzled their syllables.

And it was the leaves with a strong soft wind over them
that talked most of all and said more than any other
though speaking the fewest words.

15 It was the green leaves trickling out the gaunt nowhere
of winter, out on the gray hungry branches—

It was the leaves on the branches beginning to be heard

Read lines 12-14 from the poem.

**And it was the leaves with a strong soft wind over
them
that talked most of all and said more than any
others
though speaking the fewest words.**

What does the phrase "talked most of all" in line 13 convey?

- A. It establishes that the speaker thinks the sound of wind in the leaves is the best indication that the season is changing.
- B. It introduces the idea that the sound of the wind in the leaves remains constant throughout the seasons.
- C. It suggests that the speaker is overwhelmed by the sounds of nature that emerge as the season changes.
- D. It emphasizes that the sounds of nature enable the speaker to appreciate each season of the year.

Bird Talk

by Carl Sandburg

And now when the branches were beginning to be heard
It was the time when they once had said, "This is the
beginning of summer."

5 The shrilling of the frogs was not so shrill as in the
first weeks after the broken winter;

The birds took their hops and zigzags a little more
anxious; a home is a home; worms are worms.

The yellow spreads of the dandelions and buttercups
reached across the green pastures.

10 *Tee whee* and *tee whee* came on the breezes, and the
chuzzled their syllables.

And it was the leaves with a strong soft wind over them
that talked most of all and said more than any other
though speaking the fewest words.

15 It was the green leaves trickling out the gaunt nowhere
of winter, out on the gray hungry branches—

It was the leaves on the branches beginning to be heard

How does the repetition of " 'This is the beginning of summer' " in lines 2-3 and lines 18-19 contribute to the meaning of the poem?

- A. It suggests that the shift to summer occurs in the same way each year.
- B. It emphasizes the idea that living things are prepared for the change of season.
- C. It highlights the idea that the first signs of summer are surprising each year.
- D. It builds expectations about what the natural world looks like during a change of season.

Bird Talk

by Carl Sandburg

And now when the branches were beginning to be heard
It was the time when they once had said, "This is the
beginning of summer."

5 The shrilling of the frogs was not so shrill as in the
first weeks after the broken winter;

The birds took their hops and zigzags a little more
anxious; a home is a home; worms are worms.

The yellow spreads of the dandelions and buttercups
reached across the green pastures.

10 *Tee whee* and *tee whee* came on the breezes, and the
grackles chuzzled their syllables.

And it was the leaves with a strong soft wind over them
that talked most of all and said more than any other
though speaking the fewest words.

15 It was the green leaves trickling out the gaunt nowhere
of winter, out on the gray hungry branches—

It was the leaves on the branches beginning to be heard

Which lines from the poem **best** contrast with the idea of winter's scarcity and bleakness?

- A. "The shrilling of the frogs was not so shrill as in the / first weeks after the broken winter;" (lines 4-5)
- B. "The yellow spreads of the dandelions and buttercups / reached across the green pastures." (lines 8-9)
- C. "*Tee whee* and *tee whee* came on the breezes, and the grackles / chuzzled their syllables." (lines 10-11)
- D. "Or if instead of counting up last year as against / this year, they count up this year as against next" (lines 25-26)

Bird Talk

by Carl Sandburg

And now when the branches were beginning to be heard
It was the time when they once had said, "This is the
beginning of summer."

5 The shrilling of the frogs was not so shrill as in the
first weeks after the broken winter;

The birds took their hops and zigzags a little more
anxious; a home is a home; worms are worms.

The yellow spreads of the dandelions and buttercups
reached across the green pastures.

10 *Tee whee* and *tee whee* came on the breezes, and the
chuzzled their syllables.

And it was the leaves with a strong soft wind over them
that talked most of all and said more than any other
though speaking the fewest words.

15 It was the green leaves trickling out the gaunt nowhere
of winter, out on the gray hungry branches—

It was the leaves on the branches beginning to be heard

Throughout the poem, the poet conveys the speaker's point of view by

- A. gradually moving the speaker's attention from one element of nature to another.
- B. providing the speaker's motivation for describing the landscape in great detail.
- C. highlighting the speaker's emotional response as each season passes.
- D. shifting the speaker's focus from external observations to personal reflection.

Bird Talk

by Carl Sandburg

And now when the branches were beginning to be heard
It was the time when they once had said, "This is the
beginning of summer."

5 The shrilling of the frogs was not so shrill as in the
first weeks after the broken winter;

The birds took their hops and zigzags a little more
anxious; a home is a home; worms are worms.

The yellow spreads of the dandelions and buttercups
reached across the green pastures.

10 *Tee whee* and *tee whee* came on the breezes, and the
chuzzled their syllables.

And it was the leaves with a strong soft wind over them
that talked most of all and said more than any other
though speaking the fewest words.

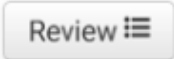
15 It was the green leaves trickling out the gaunt nowhere
of winter, out on the gray hungry branches—


It was the leaves on the branches beginning to be heard

Over the course of the poem, a central idea is developed
mainly through the speaker's

- A. sense of eager anticipation as winter ends.
- B. description of the changes in nature as the seasons transition.
- C. observation of the birds' behavior as summer begins.
- D. prediction of future alterations in the physical landscape.

There are no more questions for this passage set.

Use the review button  to return to any questions about the passage you have just read.

Once you select the blue arrow  at the top of this screen, you will **not** be able to return to any questions about this passage.

The Great Serpent Mound, located in Adams County, Ohio, is a human-made mound of earth that researchers believe was created between 300 B.C. and A.D. 1100 by an indigenous culture.

Serpent Mound

Ohio, 1846

Brush Creek stood low when the museum men came
with their measuring tapes and sketchbooks.

It was winter. Fringed with ice,
the creek doubled back on itself

5 as if it had forgotten something.

Pa was in Cincinnati, or else on his way home,
so Ma told me to lead the men
into the marshy low grounds. It being winter,
there was little underbrush to speak of—

10 in the summer there would have been
briars, poison ivy, biting flies. I listened
for the *swish* of a beaver's heavy tail,
the chitter of a chickadee, or the cry of a hawk,
but the winter silence of the creek pressed

15 down on all of us like a weight.

The humps in the ground were all but
invisible until you were right up on them. The figure
was even less obvious: the sinuous body,
the tail coiled three times around,

20 and at the other end, the mouth wide open.

In the summer the creek bottom was crowded
with so much life that you could trip over
the ridges of earth before you saw
anything at all. In winter you could climb

25 a tree and get some idea of the whole thing:
the serpent's body undulating, slithering
silently across the ancient

earth. At the mouth end, there was an oval mound
as if the snake were about to swallow an egg—

30 as snakes sometimes did in our rickety
henhouse—my Pa always said, or

as if swallowing the sun, one of the museum
men suggested, taking notes with his quill pen,
an old-style inkhorn slung at his side.

35 I liked that: swallowing the sun,
just the sort of thing a snake might do,
might want to do. When, later, I told my sister Ruth,
she disagreed. It is singing to the sun,
she insisted. That is why its mouth

40 is wide open. She said, "Sometimes I think
I hear it on summer nights. Not swallowing, singing."

The Great Serpent Mound, located in Adams County, Ohio, is a human-made mound of earth that researchers believe was created between 300 B.C. and A.D. 1100 by an indigenous culture.

Serpent Mound

Ohio, 1846

Brush Creek stood low when the museum men came
with their measuring tapes and sketchbooks.

It was winter. Fringed with ice,
the creek doubled back on itself

5 as if it had forgotten something.

Pa was in Cincinnati, or else on his way home,
so Ma told me to lead the men
into the marshy low grounds. It being winter,
there was little underbrush to speak of—

10 in the summer there would have been
briars, poison ivy, biting flies. I listened
for the *swish* of a beaver's heavy tail,

How does the poem's form contribute to the poem's meaning?

- A. The use of one continuous stanza and the pattern of the lines mimic the long and winding shape of the mound.
- B. The uneven line lengths emphasize the variety of ways people interpret the meaning of the mound.
- C. The dashes throughout the poem highlight the speaker's changing thoughts about the significance of the mound.
- D. The lack of a regular rhyme scheme and meter convey that the speaker struggles to comprehend the vastness of the mound.

The Great Serpent Mound, located in Adams County, Ohio, is a human-made mound of earth that researchers believe was created between 300 B.C. and A.D. 1100 by an indigenous culture.

Serpent Mound

Ohio, 1846

Brush Creek stood low when the museum men came with their measuring tapes and sketchbooks.

It was winter. Fringed with ice,
the creek doubled back on itself

5 as if it had forgotten something.

Pa was in Cincinnati, or else on his way home,
so Ma told me to lead the men
into the marshy low grounds. It being winter,
there was little underbrush to speak of—

10 in the summer there would have been
briars, poison ivy, biting flies. I listened
for the *swish* of a beaver's heavy tail,

Which lines reveal how the setting affects the speaker and the men from the museum?

- A. "It being winter, / there was little underbrush to speak of—" (lines 8-9)
- B. "but the winter silence of the creek pressed / down on all of us like a weight." (lines 14-15)
- C. "The humps in the ground were all but / invisible until you were right up on them." (lines 16-17)
- D. "In the summer the creek bottom was crowded / with so much life that you could trip" (lines 21-22)

The Great Serpent Mound, located in Adams County, Ohio, is a human-made mound of earth that researchers believe was created between 300 B.C. and A.D. 1100 by an indigenous culture.

Serpent Mound

Ohio, 1846

Brush Creek stood low when the museum men came with their measuring tapes and sketchbooks.

It was winter. Fringed with ice,
the creek doubled back on itself

5 as if it had forgotten something.

Pa was in Cincinnati, or else on his way home,
so Ma told me to lead the men
into the marshy low grounds. It being winter,
there was little underbrush to speak of—

10 in the summer there would have been
briars, poison ivy, biting flies. I listened
for the *swish* of a beaver's heavy tail,

Lines 1-2 contribute to the development of ideas in the poem by

- A. suggesting that the men are too busy with their work to talk to the speaker.
- B. helping establish the reason for the men's visit and purposeful behavior.
- C. hinting that the men have hidden motives for studying the mound.
- D. indicating why the speaker is fascinated by the men and wants to help them.

The Great Serpent Mound, located in Adams County, Ohio, is a human-made mound of earth that researchers believe was created between 300 B.C. and A.D. 1100 by an indigenous culture.

Serpent Mound

Ohio, 1846

Brush Creek stood low when the museum men came with their measuring tapes and sketchbooks.

It was winter. Fringed with ice,
the creek doubled back on itself

5 as if it had forgotten something.

Pa was in Cincinnati, or else on his way home,
so Ma told me to lead the men
into the marshy low grounds. It being winter,
there was little underbrush to speak of—

10 in the summer there would have been
briars, poison ivy, biting flies. I listened
for the *swish* of a beaver's heavy tail,

Read line 28 from the poem.

At the mouth end, there was an oval mound

How does the line contribute to the development of ideas in the poem?

- A. It describes a feature of the mound that the men from the museum need to document.
- B. It introduces a comparison of the body of the mound with the head of the mound.
- C. It introduces a feature of the mound that has a different meaning to different people.
- D. It describes a part of the mound that is difficult to see from far away.

The Great Serpent Mound, located in Adams County, Ohio, is a human-made mound of earth that researchers believe was created between 300 B.C. and A.D. 1100 by an indigenous culture.

Serpent Mound

Ohio, 1846

Brush Creek stood low when the museum men came with their measuring tapes and sketchbooks.

It was winter. Fringed with ice,
the creek doubled back on itself

5 as if it had forgotten something.

Pa was in Cincinnati, or else on his way home,
so Ma told me to lead the men
into the marshy low grounds. It being winter,
there was little underbrush to speak of—

10 in the summer there would have been
briars, poison ivy, biting flies. I listened
for the *swish* of a beaver's heavy tail,

What impact do the phrases “all but / invisible” and “even less obvious” in lines 16–18 have on the meaning of the poem?

- A. They indicate that viewing the full size and shape of the mound is difficult.
- B. They suggest that the location of the mound is unknown to most people.
- C. They imply that the speaker wants the location of the mound to remain a secret.
- D. They reveal that the speaker is unfamiliar with the significance of the mound.

The Great Serpent Mound, located in Adams County, Ohio, is a human-made mound of earth that researchers believe was created between 300 B.C. and A.D. 1100 by an indigenous culture.

Serpent Mound

Ohio, 1846

Brush Creek stood low when the museum men came with their measuring tapes and sketchbooks.

It was winter. Fringed with ice,
the creek doubled back on itself

5 as if it had forgotten something.

Pa was in Cincinnati, or else on his way home,
so Ma told me to lead the men
into the marshy low grounds. It being winter,
there was little underbrush to speak of—

10 in the summer there would have been
briars, poison ivy, biting flies. I listened
for the *swish* of a beaver's heavy tail,

What impact do the words “*swish*,” “*chitter*,” and “*cry*” in lines 12–13 have in the poem?

- A. They illustrate how lively the mound's surroundings are during the summer.
- B. They show how the mound disrupts natural life in the marsh.
- C. They indicate the variety of wildlife found in the area around the mound.
- D. They suggest that the speaker prefers the mound's appearance in winter.

The Great Serpent Mound, located in Adams County, Ohio, is a human-made mound of earth that researchers believe was created between 300 B.C. and A.D. 1100 by an indigenous culture.

Serpent Mound

Ohio, 1846

Brush Creek stood low when the museum men came with their measuring tapes and sketchbooks.

It was winter. Fringed with ice,
the creek doubled back on itself

5 as if it had forgotten something.

Pa was in Cincinnati, or else on his way home,
so Ma told me to lead the men
into the marshy low grounds. It being winter,
there was little underbrush to speak of—

10 in the summer there would have been
briars, poison ivy, biting flies. I listened
for the *swish* of a beaver's heavy tail,

How does the speaker's interaction with Ruth in lines 37–41 convey a central idea of the poem?

- A. It suggests that the most accurate interpretations of the mound come from knowing the purpose of the mound.
- B. It emphasizes that there are multiple interpretations of the mound based on feelings and experiences.
- C. It reveals the benefit of considering different interpretations of the mound's significance.
- D. It implies that scientific study of the mound's purpose will affect what the mound symbolizes to people.

The Great Serpent Mound, located in Adams County, Ohio, is a human-made mound of earth that researchers believe was created between 300 B.C. and A.D. 1100 by an indigenous culture.

Serpent Mound

Ohio, 1846

Brush Creek stood low when the museum men came with their measuring tapes and sketchbooks.

It was winter. Fringed with ice,
the creek doubled back on itself

5 as if it had forgotten something.


Pa was in Cincinnati, or else on his way home,
so Ma told me to lead the men
into the marshy low grounds. It being winter,
there was little underbrush to speak of—


10 in the summer there would have been
briars, poison ivy, biting flies. I listened
for the *swish* of a beaver's heavy tail,

The poet contrasts the speaker's and Ruth's points of view regarding the mound by using dialogue to

- A. imply that Ruth is worried that her interpretation of the mound will be seen as too abstract.
- B. indicate that Ruth hopes her interpretation of the mound will be shared by the men from the museum.
- C. suggest that Ruth wants the speaker to agree with her interpretation of the mound.
- D. show that Ruth has already decided on her interpretation of the mound.

There are no more questions for this passage set.

Use the review button  to return to any questions about the passage you have just read.

Once you select the blue arrow  at the top of this screen, you will **not** be able to return to any questions about this passage.

The author, Melanie Canales, is a first-generation Peruvian American farmer and beekeeper based in Virginia's Shenandoah Valley, on lands of the indigenous Monacan and Manahoac tribes. Her work focuses on creating healthy relationships between people and their surrounding ecosystems.

Excerpt from "Growing Peppers on the ISS Is Just the Start of Space Farming"

by Melanie Canales

- 1 Unburdened by the constraints of gravity, red and green peppers jut out at 45-degree angles inside the Advanced Plant Habitat (APH), a sort of space terrarium not much larger than a microwave. Four chile pepper plants stand effortlessly upright, despite the dozens of glossy fruits weighing them down. These plants have lived entirely in space; their leaves have never been chewed on by insects or rustled by a summer breeze, [and] their stems are unfamiliar with bending toward the sun's arc across the sky. Scissors glint under the tank's white and blue lights as astronaut Mark Vande Hei and his team snip the stems of those that are ready for harvest. The peppers whirl around their heads until the astronauts catch them and tape them against a board to photograph.
- 2 Back on Earth, the Plant Habitat-04 team of engineers and plant scientists are observing and conferring with the astronauts. Of the 26 peppers in this batch, only the 14 finest will stay on the International Space Station [ISS] for consumption. The rest will be wrapped in foil, sealed in a Ziploc bag, then frozen at a brisk -80 degrees, until they can come roaring back to Earth in the next cargo capsule to be studied later. Now, after a 137-day growth cycle, the astronauts remove the plants from the module and trash them. Project Plant Habitat-04 is complete. It's taco night on the ISS.
- 3 Since 2014, NASA¹ has experimented with growing lettuces, brassicas,² and zinnias³ in space, an endeavor that relies on highly specialized technology over 50 years in the making. [Fall 2021's] two successful pepper harvests . . . will provide data on the nutritional and psychological benefits of growing vegetables on-craft, as well as a crop's ability to reliably produce long-term in microgravity. While controlled environmental agriculture is not new, the APH experiment represents an evolution in specialized growth habitats. It doesn't aim to re-create Earth's conditions, but to perfect each isolated variable of plant growth in the clinical environment of a spaceship.
- 4 "The Advanced Plant Habitat is the most complex plant growth system on orbit today," says Lashelle Spencer, a plant scientist at NASA's Kennedy Space Center. Its more than 180 sensors control and monitor temperature, humidity, and carbon dioxide. The astronauts can adjust the color and intensity of the light, and how much moisture the plants' roots are getting. It waters itself.
- 5 It's the day after Thanksgiving, and Spencer has been at Kennedy since 5 a.m. to facilitate the peppers' final harvest. As part of the project team, she played a crucial role in preparing the

¹**NASA:** National Aeronautics and Space Administration

²**brassicas:** a large genus of herbs, such as broccoli and cabbage

³**zinnias:** a genus of herbs and low shrubs that have flowers at their heads

seeds that were sent hurtling into space in June and guiding the astronauts through maintaining the plants in orbit. . . . Though astronauts can spend upwards of 100 days in space, their on-mission meals come dehydrated and pre-packaged; their vitamins and minerals are isolated in supplements, which lose nutritional value the longer they're stored. Spencer's goal is to create the conditions necessary for cultivating healthy plants in space, so those plants can sustain healthy astronauts on long-term missions. Astronaut food is great, she says—"especially the shrimp cocktail. But you're missing that crunch. You're missing that fresh pop of flavor, the green flavor that's not there in that packaged food."

- 6 The sensory experience of growing productive crops can also help mitigate⁴ the psychological effects of long-term space travel. . . . Spencer says the team cracked open the door of the APH every day to observe their vegetable companions with all the tenderness of home gardeners. When harvest day came, they batted their bounty around the ISS, taking selfies and delighting in watching the fruits pirouetting around the spacecraft. . . .
- 7 "We were thinking no heat, so that [the peppers] wouldn't be dangerous, but maybe the astronauts need a little spice in their life," says Paul Bosland, who along with his colleagues at the Chile Pepper Institute genetically engineered⁵ the NuMex Española Improved chile pepper seeds grown in Plant Habitat-04. . . .
- 8 Working with NASA, Bosland cultivated a variety that could accommodate both the nutritional needs of astronauts as well as the logistics of growing a plant in space. . . .
- 9 . . . The experiment is helping gather the data necessary to determine the nutritional content of crops grown in space, and therefore how many people they can feed, and for how long. Though much is still unknown, Spencer is certain of one thing that future astronauts will need to do: "I think in an optimal world, a scientist like me would say that they would be growing plants from day one. From the day they left to the day they came back, they would be growing them."

From "Growing Peppers on the ISS Is Just the Start of Space Farming" by Melanie Canales from WIRED, December 21, 2021. Copyright © 2021 Condé Nast. All rights reserved.

⁴**mitigate:** to make something less severe or harmful

⁵**genetically engineered:** combined parts of DNA from different plants to produce a new plant

The author, Melanie Canales, is a first-generation Peruvian American farmer and beekeeper based in Virginia's Shenandoah Valley, on lands of the indigenous Monacan and Manahoac tribes. Her work focuses on creating healthy relationships between people and their surrounding ecosystems.

Excerpt from "Growing Peppers on the ISS Is Just the Start of Space Farming"

by Melanie Canales

1 Unburdened by the constraints of gravity, red and green peppers jut out at 45-degree angles inside the Advanced Plant Habitat (APH), a sort of space terrarium not much larger than a microwave. Four chile pepper plants stand effortlessly upright, despite the dozens of glossy fruits weighing them down. These plants have lived entirely in space; their leaves have never been chewed on by insects or rustled by a summer breeze, [and] their stems are unfamiliar with bending toward the

What is the **best** summary of the astronauts' process for Project Plant Habitat-04?

- A. After a 137-day growth cycle, the astronauts harvest the peppers while being observed and advised by plant scientists. The astronauts remove the peppers from the APH and photograph them before eating the most nutritious ones.
- B. The astronauts confer with plant scientists and engineers before selecting the 14 finest peppers to keep aboard the ISS for consumption. The remaining peppers are wrapped in foil and sent back to Kennedy Space Center to be studied.
- C. With the help of plant scientists, the astronauts carefully control and monitor the growing conditions in the APH, ultimately harvesting the peppers after a 137-day growth cycle. The astronauts choose 14 of the peppers for consumption and send the rest back to be studied.
- D. Astronauts use specialized tools to plant and maintain genetically modified peppers aboard the ISS. After harvesting the fruit, the astronauts tape the peppers to a board to prevent them from floating around the module.

The author, Melanie Canales, is a first-generation Peruvian American farmer and beekeeper based in Virginia's Shenandoah Valley, on lands of the indigenous Monacan and Manahoac tribes. Her work focuses on creating healthy relationships between people and their surrounding ecosystems.

Excerpt from "Growing Peppers on the ISS Is Just the Start of Space Farming"

by Melanie Canales

1 Unburdened by the constraints of gravity, red and green peppers jut out at 45-degree angles inside the Advanced Plant Habitat (APH), a sort of space terrarium not much larger than a microwave. Four chile pepper plants stand effortlessly upright, despite the dozens of glossy fruits weighing them down. These plants have lived entirely in space; their leaves have never been chewed on by insects or rustled by a summer breeze, [and] their stems are unfamiliar with bending toward the

Read this sentence from paragraph 5.

Though astronauts can spend upwards of 100 days in space, their on-mission meals come dehydrated and pre-packaged; their vitamins and minerals are isolated in supplements, which lose nutritional value the longer they're stored.

The sentence contributes to the overall meaning of the excerpt by

- A. indicating that the attempt to grow crops aboard the ISS is an important endeavor.
- B. describing the health effects of spending a significant length of time in space.
- C. revealing why certain kinds of foods are more appealing in space than on Earth.
- D. emphasizing the difficulty of preserving the nutrients in the crops grown in space.

The author, Melanie Canales, is a first-generation Peruvian American farmer and beekeeper based in Virginia's Shenandoah Valley, on lands of the indigenous Monacan and Manahoac tribes. Her work focuses on creating healthy relationships between people and their surrounding ecosystems.

Excerpt from "Growing Peppers on the ISS Is Just the Start of Space Farming"

by Melanie Canales

1 Unburdened by the constraints of gravity, red and green peppers jut out at 45-degree angles inside the Advanced Plant Habitat (APH), a sort of space terrarium not much larger than a microwave. Four chile pepper plants stand effortlessly upright, despite the dozens of glossy fruits weighing them down. These plants have lived entirely in space; their leaves have never been chewed on by insects or rustled by a summer breeze, [and] their stems are unfamiliar with bending toward the

Which statement **best** explains why Lashelle Spencer is a relevant source of information for the excerpt?

- A. She works at NASA's Kennedy Space Center.
- B. She is part of the APH project team.
- C. She is sensitive to the astronauts' need for healthy food in space.
- D. She witnessed how astronauts aboard the APH responded when harvesting their food.

The author, Melanie Canales, is a first-generation Peruvian American farmer and beekeeper based in Virginia's Shenandoah Valley, on lands of the indigenous Monacan and Manahoac tribes. Her work focuses on creating healthy relationships between people and their surrounding ecosystems.

Excerpt from "Growing Peppers on the ISS Is Just the Start of Space Farming"

by Melanie Canales

1 Unburdened by the constraints of gravity, red and green peppers jut out at 45-degree angles inside the Advanced Plant Habitat (APH), a sort of space terrarium not much larger than a microwave. Four chile pepper plants stand effortlessly upright, despite the dozens of glossy fruits weighing them down. These plants have lived entirely in space; their leaves have never been chewed on by insects or rustled by a summer breeze, [and] their stems are unfamiliar with bending toward the

How does the author support the claim in paragraph 4 that the APH is a complex plant growth system?

- A. by indicating how many sensors help control the variables of plant growth
- B. by detailing how the method of growing plants has been adapted to the conditions of space
- C. by explaining the steps required to package and return the plants to Earth
- D. by describing how NASA has spent years experimenting with plants grown in a controlled environment

Which **two** sentences in paragraphs 5–9 **best** support the idea that the astronauts working in space enjoyed participating in the food-growing experiment?

Select the **two** correct answers.

5 It's the day after Thanksgiving, and Spencer has been at Kennedy since 5 a.m. to facilitate the peppers' final harvest. As part of the project team, she played a crucial role in preparing the seeds that were sent hurtling into space in June and guiding the astronauts through maintaining the plants in orbit. . . . Though astronauts can spend upwards of 100 days in space, their on-mission meals come dehydrated and pre-packaged; their vitamins and minerals are isolated in supplements, which lose nutritional value the longer they're stored. Spencer's goal is to create the conditions necessary for cultivating healthy plants in space, so those plants can sustain healthy astronauts on long-term missions. Astronaut food is great, she says—"especially the shrimp cocktail. But you're missing that crunch. You're missing that fresh pop of flavor, the green flavor that's not there in that packaged food."

6 The sensory experience of growing productive crops can also help mitigate the psychological effects of long-term space travel. . . . Spencer says the team cracked open the door of the APH every day to observe their vegetable companions with all the tenderness of home gardeners. When harvest day came, they batted their bounty around the ISS, taking selfies and delighting in watching the fruits pirouetting around the spacecraft. . . .

7 "We were thinking no heat, so that [the peppers] wouldn't be dangerous, but maybe the astronauts need a little spice in their life," says Paul Bosland, who along with his colleagues at the Chile Pepper Institute genetically engineered the NuMex Española Improved chile pepper seeds grown in Plant Habitat-04. . . .

8 Working with NASA, Bosland cultivated a variety that could accommodate both the nutritional needs of astronauts as well as the logistics of growing a plant in space. . . .

9 . . . The experiment is helping gather the data necessary to determine the nutritional content of crops grown in

The author, Melanie Canales, is a first-generation Peruvian American farmer and beekeeper based in Virginia's Shenandoah Valley, on lands of the indigenous Monacan and Manahoac tribes. Her work focuses on creating healthy relationships between people and their surrounding ecosystems.

Excerpt from "Growing Peppers on the ISS Is Just the Start of Space Farming"

by Melanie Canales

1 Unburdened by the constraints of gravity, red and green peppers jut out at 45-degree angles inside the Advanced Plant Habitat (APH), a sort of space terrarium not much larger than a microwave. Four chile pepper plants stand effortlessly upright, despite the dozens of glossy fruits weighing them down. These plants have lived entirely in space; their leaves have never been chewed on by insects or rustled by a summer breeze, [and] their stems are unfamiliar with bending toward the

The description in paragraph 5 of Lashelle Spencer's goal develops a central idea of the excerpt by

- A. illustrating that certain types of packaged foods available in space lack particular flavors.
- B. supporting the notion that spending more than 100 days in space is detrimental to astronauts' health.
- C. offering an example of how the limited selection of on-mission meals becomes less appealing over time.
- D. making an important point about the astronauts' current reliance on supplements for vitamins and minerals.

The author, Melanie Canales, is a first-generation Peruvian American farmer and beekeeper based in Virginia's Shenandoah Valley, on lands of the indigenous Monacan and Manahoac tribes. Her work focuses on creating healthy relationships between people and their surrounding ecosystems.

Excerpt from "Growing Peppers on the ISS Is Just the Start of Space Farming"

by Melanie Canales

1 Unburdened by the constraints of gravity, red and green peppers jut out at 45-degree angles inside the Advanced Plant Habitat (APH), a sort of space terrarium not much larger than a microwave. Four chile pepper plants stand effortlessly upright, despite the dozens of glossy fruits weighing them down. These plants have lived entirely in space; their leaves have never been chewed on by insects or rustled by a summer breeze, [and] their stems are unfamiliar with bending toward the

What is the relationship between the scientists and the astronauts in carrying out the plant-growing experiments?

Move the correct answer to each box.

growing the plants to harvest

documenting the nutritional goals

analyzing the environment

developing the materials and systems

determining the most nutritional plants

Scientists on earth are primarily responsible for

for conducting plant experiments in space, while the astronauts aboard the

International Space Station are responsible for

for the experiment.

The author, Melanie Canales, is a first-generation Peruvian American farmer and beekeeper based in Virginia's Shenandoah Valley, on lands of the indigenous Monacan and Manahoac tribes. Her work focuses on creating healthy relationships between people and their surrounding ecosystems.

Excerpt from "Growing Peppers on the ISS Is Just the Start of Space Farming"

by Melanie Canales

1 Unburdened by the constraints of gravity, red and green peppers jut out at 45-degree angles inside the Advanced Plant Habitat (APH), a sort of space terrarium not much larger than a microwave. Four chile pepper plants stand effortlessly upright, despite the dozens of glossy fruits weighing them down. These plants have lived entirely in space; their leaves have never been chewed on by insects or rustled by a summer breeze, [and] their stems are unfamiliar with bending toward the

How is the quotation from Lashelle Spencer at the end of paragraph 9 relevant to the discussion of the peppers referred to in paragraph 2?

- A. The quotation indicates that larger batches of peppers need to be grown during future missions and suggests a slight criticism of the astronauts discussed in paragraph 2 for not dedicating more of their time to growing peppers during their mission.
- B. The quotation explains why the 137-day growth cycle mentioned in paragraph 2 is necessary and provides a suggestion on how to grow more peppers during the same growth cycle in future missions.
- C. The quotation helps explain why some of the peppers discussed in paragraph 2 needed to be sent back to Earth and that increasing the overall number of peppers grown in space will be important in future missions.
- D. The quotation provides context for understanding why the peppers discussed in paragraph 2 must be sealed and frozen prior to their return to Earth and suggests how this method might be improved in upcoming missions.

The author, Melanie Canales, is a first-generation Peruvian American farmer and beekeeper based in Virginia's Shenandoah Valley, on lands of the indigenous Monacan and Manahoac tribes. Her work focuses on creating healthy relationships between people and their surrounding ecosystems.

Excerpt from "Growing Peppers on the ISS Is Just the Start of Space Farming"

by Melanie Canales

1 Unburdened by the constraints of gravity, red and green peppers jut out at 45-degree angles inside the Advanced Plant Habitat (APH), a sort of space terrarium not much larger than a microwave. Four chile pepper plants stand effortlessly upright, despite the dozens of glossy fruits weighing them down. These plants have lived entirely in space; their leaves have never been chewed on by insects or rustled by a summer breeze, [and] their stems are unfamiliar with bending toward the

How is the discussion of the genetic engineering of the peppers consumed on the ISS (paragraphs 7–8) important to the excerpt as a whole?

- A. It provides a detail that helps the reader identify a particular variety of pepper consumed on the ISS.
- B. It indicates that the peppers eaten on the ISS resulted from a collaboration between scientists and astronauts.
- C. It allows the reader to understand how the peppers consumed on the ISS differ from most peppers grown on Earth.
- D. It suggests that the peppers consumed on the ISS are of a type that could be grown in natural conditions.

The author, Melanie Canales, is a first-generation Peruvian American farmer and beekeeper based in Virginia's Shenandoah Valley, on lands of the indigenous Monacan and Manahoac tribes. Her work focuses on creating healthy relationships between people and their surrounding ecosystems.

Excerpt from "Growing Peppers on the ISS Is Just the Start of Space Farming"


by Melanie Canales


1 Unburdened by the constraints of gravity, red and green peppers jut out at 45-degree angles inside the Advanced Plant Habitat (APH), a sort of space terrarium not much larger than a microwave. Four chile pepper plants stand effortlessly upright, despite the dozens of glossy fruits weighing them down. These plants have lived entirely in space; their leaves have never been chewed on by insects or rustled by a summer breeze, [and] their stems are unfamiliar with bending toward the

With which statement would the author **most likely** agree?

- A. Some plants are better adapted for growing in space than on Earth, and focus should be placed on them.
- B. Attempting to grow plants in space the same way they are grown on Earth would not result in success.
- C. Plants grown in space provide better nutritional value than plants grown on Earth.
- D. Successfully growing plants in space is a challenge, so more research must first be completed on plants grown on Earth.

There are no more questions for this passage set.

Use the review button  to return to any questions about the passage you have just read.

Once you select the blue arrow  at the top of this screen, you will **not** be able to return to any questions about this passage.

English Language Arts

REVISING/EDITING PART A

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

Passage 7

New York City and the Hudson Valley Brickmaking Industry

(1) Residents of New York City cannot help but notice that the buildings they are surrounded by are predominantly made of brick. (2) Indeed, one author described the bricks that make up some of New York City's most recognizable landmarks, including the Empire State Building and the arches of the Brooklyn Bridge, as "an inescapable presence." (3) Nearly 65 million people visit New York City every year to see these and other attractions. (4) Why was so much brick used in buildings constructed during the century before World War II? (5) The answer involves an explosion in New York City's population that caused an increase in demand for bricks starting in the mid-1800s and lasting into the 1940s that affected the area more than 100 miles up the Hudson River Valley toward Albany. (6) When demand later declined, the industry would entirely disappear.

(7) New York City's appetite for brick was fueled by surging population and demand for safer building materials. (8) The city's population ballooned from about 313,000 people in 1840 to more than 7 million a century later. (9) Following large, destructive fires in the 1830s, the city had enacted laws requiring the use of fire-resistant materials. (10) Bricks turned out to be an inexpensive way for builders to quickly throw together a lot of structures while keeping building owners and safety inspectors happy.

(11) The brickmaking industry in the Hudson Valley skyrocketed. (12) At the industry's peak, approximately 130 brick factories crammed themselves into a 120-mile stretch along the Hudson River. (13) These factories employed much of the region's population. (14) Population growth in the Hudson River Valley after the mid-1800s was substantial, though percentage increases were smaller than those in New York City. (15) Even though the factories operated only during the summers, their production was immense. (16) Hudson Valley factories shipped over a billion bricks on barges down the river to New York City annually. (17) In fact, *The New York Times* declared, "It's fairly safe to assume that any brick building constructed between 1800 and 1950 includes some form of sediment from the banks of the Hudson River."

(18) History has proven, however, that boom times eventually end. (19) Shifting architectural trends halted not only the Hudson Valley's brickmaking boom, but its entire industry. (20) Starting early in the twentieth century, architects and builders increasingly favored steel, glass, and concrete instead of brick. (21) By 1979, reduced demand for brick had driven every Hudson Valley brick factory out of business.

(22) The Hudson Valley's brickmaking legacy lives on in the architecture of New York City. (23) Throughout the city, famous and ordinary buildings stand as evidence of the remarkable productivity achieved by the Valley's brickmakers. (24) The brick buildings surrounding New Yorkers today serve as a reminder that, as one amateur brick historian put it, "The skyline of New York City used to be the landscape of the Hudson River Valley."

New York City and the Hudson Valley Brickmaking Industry

(1) Residents of New York City cannot help but notice that the buildings they are surrounded by are predominantly made of brick. (2) Indeed, one author described the bricks that make up some of New York City's most recognizable landmarks, including the Empire State Building and the arches of the Brooklyn Bridge, as "an inescapable presence." (3) Nearly 65 million people visit New York City every year to see these and other attractions. (4) Why was so much brick used in buildings constructed during the century before World War II? (5) The answer involves an explosion in New York City's population that caused an increase in demand for bricks starting in the mid-1800s and lasting into the 1940s that affected the area more than 100 miles up the Hudson River Valley toward Albany. (6) When demand later declined, the industry would entirely disappear.

(7) New York City's appetite for brick was fueled by

Which revision of sentence 10 would **best** maintain the style established in the passage?

- A. Builders turned to brick, which was an affordable material that met safety standards while satisfying the city's large demand for buildings.
- B. Figuring out that bricks were inexpensive, builders used tons of them to satisfy inspectors and the city's desperate construction needs.
- C. Builders favored brick as a pleasingly economical way to meet significant construction demand while following municipal regulations.
- D. Once builders realized that low-cost brick was a law-abiding way to meet the city's building needs, they hardly ever used any other materials.

New York City and the Hudson Valley Brickmaking Industry

(1) Residents of New York City cannot help but notice that the buildings they are surrounded by are predominantly made of brick. (2) Indeed, one author described the bricks that make up some of New York City's most recognizable landmarks, including the Empire State Building and the arches of the Brooklyn Bridge, as "an inescapable presence." (3) Nearly 65 million people visit New York City every year to see these and other attractions. (4) Why was so much brick used in buildings constructed during the century before World War II? (5) The answer involves an explosion in New York City's population that caused an increase in demand for bricks starting in the mid-1800s and lasting into the 1940s that affected the area more than 100 miles up the Hudson River Valley toward Albany. (6) When demand later declined, the industry would entirely disappear.

(7) New York City's appetite for brick was fueled by

Which **two** sentences present information irrelevant to the ideas in the passage and should be deleted?

Move the **two** correct answers to the box.

"Nearly 65 million people visit New York City every year to see these and other attractions." (sentence 3)

"The city's population ballooned from about 313,000 people in 1840 to more than 7 million a century later." (sentence 8)

"Population growth in the Hudson River Valley after the mid-1800s was substantial, though percentage increases were smaller than those in New York City." (sentence 14)

"History has proven, however, that boom times eventually end." (sentence 18)

"Throughout the city, famous and ordinary buildings stand as evidence of the remarkable productivity achieved by the Valley's brickmakers." (sentence 23)

Should Be Deleted

New York City and the Hudson Valley Brickmaking Industry

(1) Residents of New York City cannot help but notice that the buildings they are surrounded by are predominantly made of brick. (2) Indeed, one author described the bricks that make up some of New York City's most recognizable landmarks, including the Empire State Building and the arches of the Brooklyn Bridge, as "an inescapable presence." (3) Nearly 65 million people visit New York City every year to see these and other attractions. (4) Why was so much brick used in buildings constructed during the century before World War II? (5) The answer involves an explosion in New York City's population that caused an increase in demand for bricks starting in the mid-1800s and lasting into the 1940s that affected the area more than 100 miles up the Hudson River Valley toward Albany. (6) When demand later declined, the industry would entirely disappear.

(7) New York City's appetite for brick was fueled by

Which phrase should be added to the beginning of sentence 11 to provide the **best** transition from the ideas in sentence 10?

- A. While adapting to new uses for brick,
- B. Because the building boom preferred brick,
- C. As a result of New York City's building boom,
- D. Although reliance on brick became the norm,

New York City and the Hudson Valley Brickmaking Industry

(1) Residents of New York City cannot help but notice that the buildings they are surrounded by are predominantly made of brick. (2) Indeed, one author described the bricks that make up some of New York City's most recognizable landmarks, including the Empire State Building and the arches of the Brooklyn Bridge, as "an inescapable presence." (3) Nearly 65 million people visit New York City every year to see these and other attractions. (4) Why was so much brick used in buildings constructed during the century before World War II? (5) The answer involves an explosion in New York City's population that caused an increase in demand for bricks starting in the mid-1800s and lasting into the 1940s that affected the area more than 100 miles up the Hudson River Valley toward Albany. (6) When demand later declined, the industry would entirely disappear.

(7) New York City's appetite for brick was fueled by

Which sentence would **best** follow sentence 20 to support ideas in the fourth paragraph (sentences 18–21)?

- A. At first many people thought the new materials did not look as strong as brick, but eventually the public embraced the trend.
- B. Increasingly expensive shipping and labor costs also drove up the costs for brickmaking factories.
- C. The Flatiron building, completed in 1902, is a notable example of an early steel-framed building.
- D. The more that New York City builders chose to use these materials, the fewer bricks they bought.

English Language Arts

REVISING/EDITING PART B

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. As needed, you may use the notepad tool or write on the scrap paper given to you to take notes. You should reread relevant parts of the sentences or paragraphs, while being mindful of time, before selecting the **best** answer for each question.

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

(1) In 1976, the National Basketball Association (NBA) absorbed several teams of the American Basketball Association (ABA), including the New York Nets, who played in the Long Island area at the time. (2) The owner of the Nets decided to take the team to New Jersey after the team had financial troubles, where the team played for thirty-five seasons. (3) The New Jersey Nets had sixteen playoff appearances, including two appearances in the NBA finals. (4) In 2012, the team changed ownership and returned to New York, where the team now plays under the name the Brooklyn Nets.

- A. sentence 1
- B. sentence 2
- C. sentence 3
- D. sentence 4

Read these sentences.

- (1) Jordan rehearsed his role for weeks.
- (2) He delivered his lines with ease.
- (3) His performance was met with a burst of applause from the audience.

What is the best way to combine the sentences to clarify the relationship between ideas?

- A. Though Jordan had rehearsed his role for weeks, when he delivered his lines with ease, his performance was met with a burst of applause from the audience.
- B. Jordan had rehearsed his role for weeks, yet he delivered his lines with ease, so his performance was met with a burst of applause from the audience.
- C. Because Jordan had rehearsed his role for weeks, he delivered his lines with ease, and his performance was met with a burst of applause from the audience.
- D. Jordan had rehearsed his role for weeks, so he delivered his lines with ease, but his performance was met with a burst of applause from the audience.

Which pair of revisions need to be made in this paragraph?

(1) Both Italian gelato and American ice cream are delightful treats to have on a hot summer day, but many people wonder: what is the difference between the two? (2) To start with, the butterfat content is much higher in ice cream than it is in gelato, making the Italian treat a wiser decision for people looking to make healthier choices. (3) Additionally, the mixing process, which adds less air to the frozen treat, makes gelato denser than ice cream. (4) Finally, gelato is served 10 to 15 degrees warmer than ice cream, which enhances the texture and flavor of the gelato, and allow it to melt more quickly.

- A. Sentence 1: Delete the colon after **wonder** AND change **is** to **are**.
- B. Sentence 2: Delete the comma after **with** AND change **it is** to **they are**.
- C. Sentence 3: Delete the comma after **process** AND change **makes** to **make**.
- D. Sentence 4: Delete the comma after **gelato** AND change **allow** to **allows**.

MATHEMATICS
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.

DIRECTIONS:

Solve each problem. Select the answer from the choices given or enter your answer in the space provided. When you are solving problems, you can use the online notepad tool or write on the scrap paper given to you.

Math Item 1

What is the prime factorization of 756?

A. $2^2 \cdot 3^2 \cdot 21$

B. $2^2 \cdot 3 \cdot 7 \cdot 9$

C. $2^2 \cdot 7 \cdot 27$

D. $2^2 \cdot 3^3 \cdot 7$

Math Item 2

If $(8 \div m) + 4 = 20$, what is the value of m ?

A. $\frac{1}{3}$

B. $\frac{1}{2}$

C. 2

D. 3

$$6x = x - 1,680$$

What is the value of x in the equation shown above?

- A. 336
- B. 240
- C. -240
- D. -336

Math Item 4

A person buys a used car with a down payment of \$1,200 and makes monthly payments of \$275 for 3 years. What is the total amount the person pays for the car?

- A. \$2,025
- B. \$9,900
- C. \$11,100
- D. \$13,500

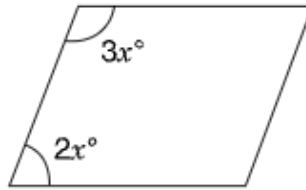
Math Item 5

Maya read n pages for her English homework. Trevor read three times as many pages as Maya. Together, Maya and Trevor read 12 more pages than Ali read. Write an expression that shows how many pages Ali read, in terms of n .

Enter your answer in the space provided. Enter only your answer.

<input type="text"/>							
1	2	3	4	5	n		
6	7	8	9	0	+	-	$\sqrt{\quad}$
%	-	.	$\frac{\square}{\square}$	$\frac{\square\square}{\square}$	\cdot	\div	$\sqrt[n]{\quad}$
	\square^\square	()	\leq	$<$	$=$	$>$	\geq
π							

Math Item 6



In the parallelogram above, what is the value of x ?

- A. 36
- B. 18
- C. 6
- D. 5

$$-12 > 6x$$

For what values of x is the above inequality true?

- A. $x > -6$
- B. $x < -6$
- C. $x < -2$
- D. $x > -2$

Math Item 8

Jordan is helping plan snacks for a school dance. He knows that 0.75 of the students voted for pizza, and he wants to record the same amount using a fraction.

Which fractions are equivalent to the decimal 0.75?

Select the **four** correct answers.

A. $\frac{3}{4}$

B. $\frac{15}{20}$

C. $\frac{75}{100}$

D. $\frac{2}{5}$

E. $\frac{6}{8}$

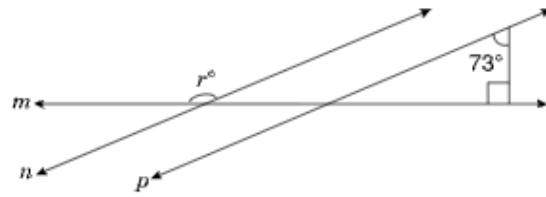
F. $\frac{8}{10}$

Math Item 9

Maria rides her bicycle to school at a constant speed of 15 miles per hour. If the distance to school is 6 miles, how many **minutes** will it take Maria to get to school?

- A. 10
- B. 15
- C. 24
- D. 30

Math Item 10



In the figure above, $n \parallel p$. Straight line m intersects both line n and line p . What is the value of r ?

- A. 17
- B. 117
- C. 163
- D. 173

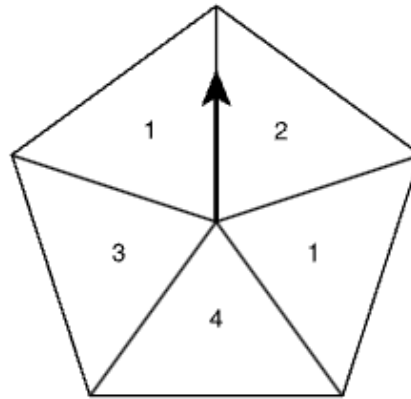
Math Item 11

Allison has 5 stamp albums with 576 stamps in each album. If she transfers her stamp collection to 6 albums, each holding 378 stamps, how many stamps will be left over?

- A. 198
- B. 612
- C. 620
- D. 632

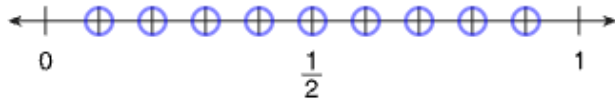
Math Item 12

A spinner has 5 congruent sections labeled as shown. One side of a fair coin is heads, and the other side is tails.



The spinner is spun one time, and the coin is flipped. What is the probability that the spinner lands on 1 and the coin lands on tails?

Select the place on the number line that represents the probability.



Math Item 13

Start with the number 135.28 and perform the following steps in order:

- Step 1: Multiply by 10.
- Step 2: Add 0.5 to the result of Step 1.
- Step 3: Drop the digits after the decimal point.
- Step 4: Divide by 10.

What is the result?

- A. 13.5
- B. 135
- C. 135.2
- D. 135.3

Math Item 14

If $x = -2$, what is the value of $|x + x^2 + x^3| - |x + 2x + 3x|$?

- A. -18
- B. -6
- C. -2
- D. 2

Math Item 15

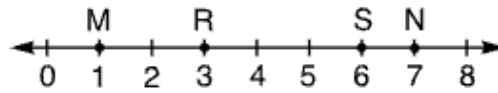
A grocery store sells 1-gallon containers of milk for \$3.99. The store also sells orange juice in a 6-pack of 5.5-fluid-ounce bottles for \$1.79. Suppose the store wants to sell its orange juice in gallon containers instead. To the nearest dollar, how much more would a gallon of orange juice cost than a gallon of milk?

Enter your answer in the space.

Math Item 16

$$\frac{3+(-3)}{3-(-3)} =$$

- A. -1
- B. 0
- C. $\frac{1}{6}$
- D. 1



What is the distance between the midpoints of \overline{MN} and \overline{RS} ?

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

I. $s - t$

II. st^2

III. s^t

If s is a positive integer and t is a negative integer, which of the above expressions **must** be a positive number?

- A. II only
- B. I and II only
- C. II and III only
- D. I, II, and III

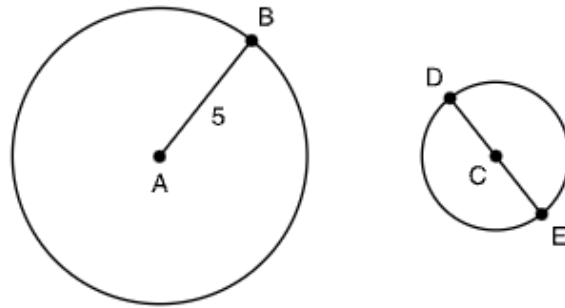
Math Item 19

What is the value of $\left(-\frac{3}{4}\right)\left(-\frac{2}{5}\right)$?

- A. $-\frac{7}{20}$
- B. $-\frac{3}{10}$
- C. $\frac{3}{10}$
- D. $\frac{7}{20}$

Math Item 20

Two circles, with centers at A and C, are shown. Line segment AB is congruent to line segment DE.



Determine the area, A , and the circumference, C , of each circle to complete the table.

Select one answer in each row.

	Circle A	Circle C	Neither
$A = 25\pi$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$C = 5\pi$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Math Item 21

In a fruit basket, the ratio of apples to oranges is the same as the ratio of cherries to walnuts. If there are 6 oranges, 16 cherries, and 48 walnuts, how many apples are there?

- A. 2
- B. 3
- C. 18
- D. 38

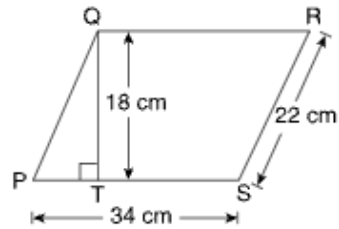
Math Item 22

During a hiking trip, a group of students recorded the elevation (in feet) at several points along the trail:

-120 ft, -80 ft, 0 ft, 45 ft, -30 ft, 90 ft

What is the difference between the highest and lowest elevations recorded on the trail?

Enter your answer in the space.



On parallelogram PQRS above, the length of \overline{QT} is 18 centimeters. What is the area of the parallelogram?

- A. 112 sq cm
- B. 396 sq cm
- C. 612 sq cm
- D. 748 sq cm

Math Item 24

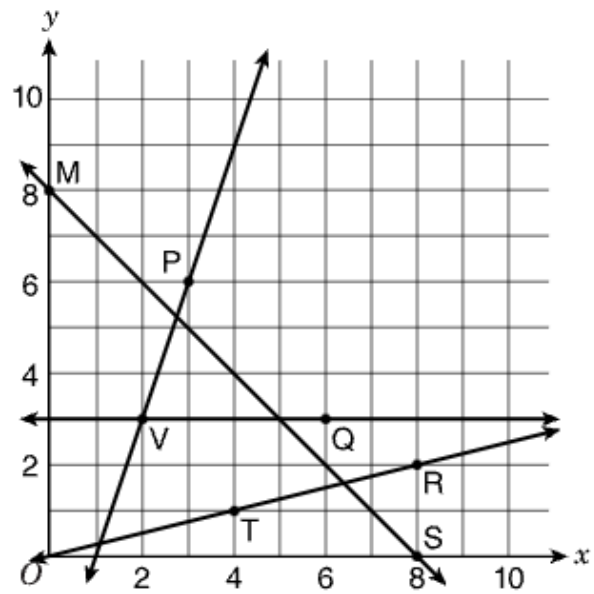
In a showing of an artist's works, the ratio of the number of paintings, drawings, and photographs shown is 3:5:4, respectively. If the number of drawings shown was 45, what is the total number of photographs and paintings that were shown?

- A. 36
- B. 63
- C. 84
- D. 108

Math Item 25

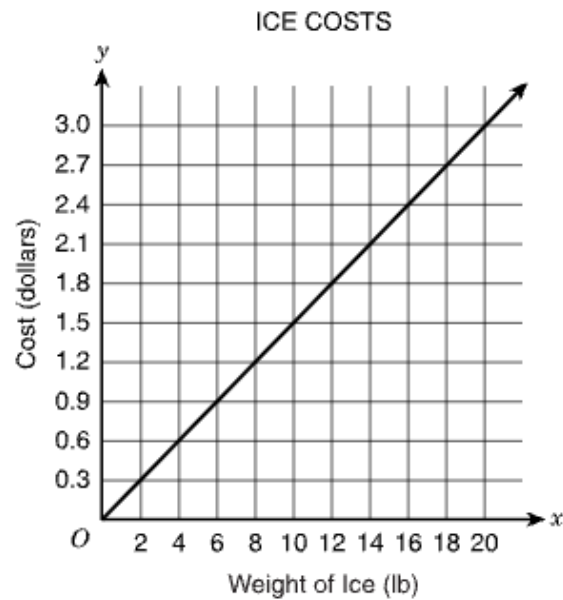
For each $\frac{3}{8}$ foot of curtain width, $\frac{5}{6}$ yard of fabric is needed to make ruffles. How many yards of fabric are needed per foot of curtain width?

- A. $\frac{5}{16}$ yd
- B. $\frac{29}{24}$ yd
- C. $\frac{20}{9}$ yd
- D. $\frac{7}{2}$ yd



Which straight line is the graph of a proportional relationship?

- A. \overleftrightarrow{MS}
- B. \overleftrightarrow{VP}
- C. \overleftrightarrow{VQ}
- D. \overleftrightarrow{TR}



Some friends are buying bags of ice for a picnic. The graph shows the cost of the ice, in dollars, in relation to the weight, in pounds. Which statement about a point on the graph is true?

- A. The point (20, 3) means that 3 lbs of ice costs \$20.00.
- B. The point (1, 0.15) means that 1 bag of ice costs \$0.15.
- C. The point (10, 1.5) means that 10 lbs of ice costs \$1.50.
- D. The point (0, 0) means that 0 lbs of ice will be needed if 0 people go to the picnic.

Math Item 28

If $\frac{z+3w}{4} = 5w$, what is the value of z in terms of w ?

Enter your answer in the space provided. Enter only your answer.

$z =$

1	2	3	4	5	w		
6	7	8	9	0	+	-	$\sqrt{\quad}$
%	-	.	$\frac{\square}{\square}$	$\frac{\square\square}{\square\square}$	\cdot	\div	$\sqrt[n]{\quad}$
	\square^\square	()	\leq	$<$	$=$	$>$	\geq
π							

A smoothie shop uses a consistent ratio of fruit to yogurt in its recipes. The table shows the proportional relationship between the number of cups of fruit (x) and the number of cups of yogurt (y) in different smoothie batches.

SMOOTHIE RECIPE

Cups of Fruit x	Cups of Yogurt y
6	1.5
8	2.0
10	2.5
12	3.0

What is the constant of proportionality of the number of cups of yogurt to the number of cups of fruit?

Enter your answer in the space.

Math Item 30

Out of 2,000 high school seniors, 191 were enrolled in the Honor Society. What percentage of the entire group of 2,000 seniors were in the Honor Society?

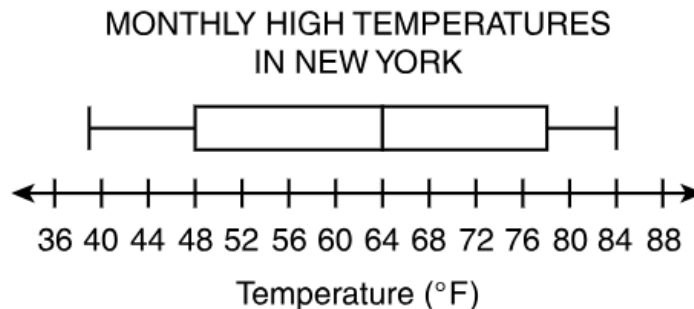
- A. 0.955%
- B. 1.91%
- C. 9.55%
- D. 19.1%

NUMBER OF VISITORS
TO BROOKSIDE ZOO

	Male	Female
Children	360	340
Adults	210	290

The table above shows the number of people who visited Brookside Zoo in one day. The largest of the four groups made up what percentage of all visitors on that day?

- A. 30%
- B. 28%
- C. 24%
- D. 17%



The box plot shows the average monthly high temperatures in New York City for 12 months. What is the difference between the range and the interquartile range of the temperature data?

Enter your answer in the space.

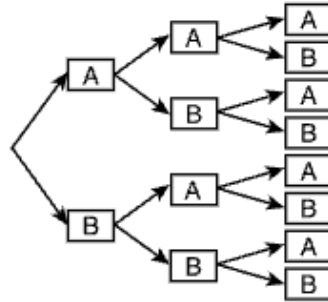
Math Item 33

A bag contains 40 tiles that are either red, green, or blue. A tile is selected at random, the color is recorded, and the tile is put back in the bag. This process is carried out 120 times, and 18 of those times a red tile is selected. Based on the information, what is the most likely number of red tiles in the bag?

- A. 6
- B. 15
- C. 18
- D. 30

Math Item 34

A teacher will randomly select 3 students to be on a school committee. He will choose either a student from Classroom A or a student from Classroom B with each selection. This tree diagram shows the selection possibilities.



What is the probability that the teacher will select 2 students from Classroom A and 1 student from Classroom B (in any order) for the committee?

- A. $\frac{1}{8}$
- B. $\frac{3}{8}$
- C. $\frac{1}{2}$
- D. $\frac{3}{4}$

If $4(a + 2b) = 28b + 2a$, what is the value of a in terms of b ?

Enter your answer in the space provided. Enter only your answer.

$a =$

\leftarrow	\rightarrow	\curvearrowright	\curvearrowleft	\times	trash		
1	2	3	4	5	b		
6	7	8	9	0	+	-	$\sqrt{\quad}$
%	-	.	$\frac{\square}{\square}$	$\frac{\square\square}{\square\square}$	\cdot	\div	$\sqrt[n]{\quad}$
	\square^\square	()	\leq	$<$	$=$	$>$	\geq
π							$ $

Math Item 36

A deck of 52 playing cards contains 13 hearts. Sara has 12 cards from this deck in her hand, 3 of which are hearts. The other cards remain in the deck. What is the probability that a card drawn at random from the remainder of the deck will be a heart?

- A. $\frac{1}{10}$
- B. $\frac{1}{4}$
- C. $\frac{3}{13}$
- D. $\frac{1}{3}$

The table shows the probability of randomly picking each flavor of candy from a bowl.

PICKING CANDY FROM
A BOWL

Flavor	Probability
Butterscotch	0.57
Lemon	0.095
Maple	0.125
Strawberry	0.21

Which flavor is most likely to be randomly picked?

- A. butterscotch
- B. lemon
- C. maple
- D. strawberry

This formula can be used to determine p , the number of pages that will be in a book that contains w words, with an average of r words per page, and f extra pages in the front for the title and publishing information.

$$p = \frac{1}{r}w + f$$

If the formula is solved for w , it can be used to find the number of words in a book with p pages. What will the formula be if it is solved for w ?

- A. $w = r(p - f)$
- B. $w = \frac{1}{r}p + f$
- C. $w = f + rp$
- D. $w = r + p + f$

Math Item 39

A shipment contains 170 small boxes of medical supplies. In a random sample of 20 of these boxes, 8 have damage and the others are undamaged. Based on this sample, what is the best prediction of the number of undamaged boxes in the shipment, **not** including the boxes in the random sample?

- A. 60
- B. 68
- C. 90
- D. 102

Math Item 40

In basketball, a player can earn 1 point for making a free throw and 2 points for making another basket. Marcus makes a mean of 8 free throws per game, and he scores a total of at least 25 points per game. The inequality below shows this relationship, where b represents the number of 2-point baskets Marcus makes.

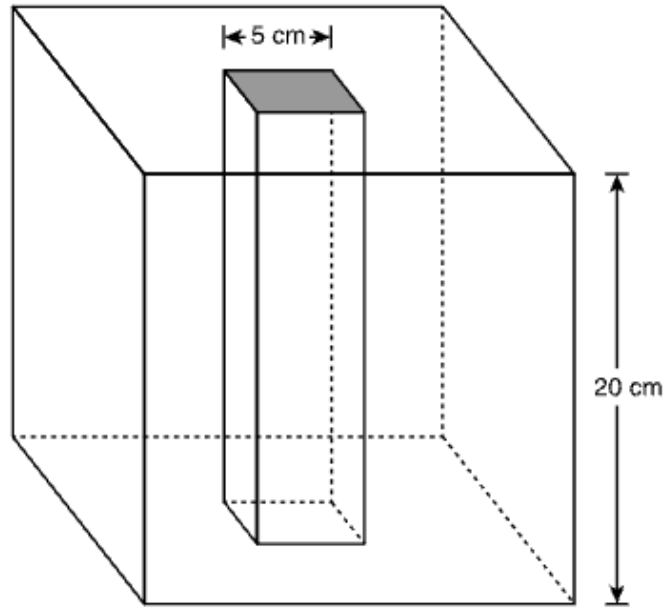
$$2b + 8 \geq 25$$

What is the number of 2-point baskets Marcus needs to make if he wants to score at **least** his minimum total points for a game and make his mean number of free throws?

- A. $b \leq 8$
- B. $b \geq 9$
- C. $b \geq 16$
- D. $b \leq 25$

Math Item 42

Tariq is making a clay block in the shape of a cube with a side length of 20 cm. He hollows out the center by removing clay to form a rectangular prism-shaped hole with a base of 5 cm · 5 cm and a height of 20 cm.



What is the volume, in cubic centimeters, of the block after the clay is removed from the center?

Enter your answer in the space.

Math Item 43

A softball player bought bottles of water for her team to have at practice. The total number of bottles she bought, b , is proportional to n , the number of players at practice. Which equation represents the relationship between b and n ? The constant of proportionality is p .

- A. $b = pn$
- B. $b = p + n$
- C. $b + n = p$
- D. $b + n + p = 1$

Math Item 44

A smartphone screen is designed to be 72 millimeters wide. The quality control team allows for a variation of $\pm 4\%$ in the width. Select the minimum and maximum screen widths that fall within the acceptable range of screen widths, in millimeters.

Select the correct answer from each drop-down to complete the sentence.

The acceptable screen width is from to millimeters.

RESPONSE_A1	RESPONSE_A2
68.00	73.44
69.12	74.88
70.00	75.00
71.28	76.00

Math Item 45

Malik earns \$10 per hour at his job. He wants to change to a job that will pay \$12 per hour. What will be the percent increase in Malik's hourly pay if he makes this job change?

- A. 2%
- B. 20%
- C. 83%
- D. 120%

Math Item 46

A rain gauge shows that 10 centimeters of rain fell yesterday. If 1 inch is equal to approximately 2.5 centimeters, about how many inches of rain fell yesterday?

- A. 1
- B. 2.5
- C. 4
- D. 10

Math Item 47

The height of a plant, in millimeters, is proportional to the number of days the plant has grown. The plant has grown 20 millimeters in 8 days. What is the constant of proportionality, in millimeters per day?

- A. 0.4
- B. 2.5
- C. 12
- D. 20

Which table shows a proportional relationship?

A.

x	y
0	0
4	$\frac{3}{2}$
8	3

B.

x	y
0	1
4	$\frac{7}{2}$
8	6

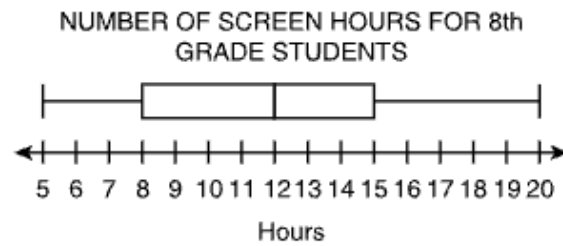
C.

x	y
0	-1
4	$-\frac{1}{2}$
8	0

D.

x	y
0	0
4	12
8	16

The box plot illustrates the number of hours eighth-grade students spend on screens during a typical week. What is the difference between the range and the interquartile range (IQR) of the screen time data?



Move the correct answer to each box. Not all answers will be used.

 5 7 8 15

The range of screen time hours is hours.

The IQR is hours.

The difference between the range and the IQR is hours.

Math Item 50

Terry wants to pour cement around the edge of the circular patio in her backyard. The patio has a radius of 5 feet. What is the distance, in feet, around the edge of the patio? Use 3.14 for π .

- A. 15.7
- B. 31.4
- C. 49.3
- D. 78.5