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Practice Test

2026 Nov INT - A

Section	Module	Questions	Time
Reading and Writing	1	27	32 minutes
Reading and Writing	2	27	32 minutes
Math	1	22	35 minutes
Math	2	22	35 minutes
Total		**98**	**134 minutes**

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The Reading and Writing section comes first, followed by a 10-minute break and then the Math section. Answers are provided in a separate Answer Key.

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Section 1, Module 1: Reading and Writing

27 QUESTIONS • 32 MINUTES

DIRECTIONS

The questions in this section address a number of important reading and writing skills. Each question includes one or more passages, which may include a table or graph. Read each passage and question carefully, and then choose the best answer to the question based on the passage(s).

All questions in this section are multiple-choice with four answer choices. Each question has a single best answer.

Section 1, Module 1: Reading and Writing

1

The following text is adapted from the 1895 poem “The Song My Paddle Sings” by Emily Pauline Johnson (Tekahionwake).

West wind blow from your prairie nest,

Blow from the mountains, blow from the west.

The sail is idle, the sailor too;

O! wind of the west, we wait for you.

As used in the text, what does the word “idle” most nearly mean?

A. Untrustworthy

B. Inactive

C. Unsupported

D. Nonsensical

2

When researchers used a robot shaped like Caudipteryx—a flightless, omnivorous dinosaur with minuscule wings—to imitate flush-pursue foraging (a hunting strategy in which a predator flashes its wings), more nearby grasshoppers emerged from hiding. The researchers therefore hypothesized that very small wings without obvious utility may have _____ some early dinosaurs’ ability to capture prey.

Which choice completes the text with the most logical and precise word or phrase?

A. deferred

B. revitalized

C. enhanced

D. encompassed

3

Technical documentation for installing complex heating and cooling systems is sometimes frustratingly _____, offering such complicated and excessively detailed guidance that even seasoned professionals can make little sense of it. That such systems get successfully set up is a testament to the installers’ expertise.

Which choice completes the text with the most logical and precise word or phrase?

A. vague

B. condensed

C. simplistic

D. convoluted

4

It has plausibly been suggested that the widespread replacement of plants utilizing C_3 carbon fixation by plants utilizing C_4 carbon fixation 2.6 million years ago was due to increasing global aridity. It is also _____, however, that the shift occurred because C_4 carbon fixation was better suited to the decline in atmospheric carbon dioxide levels that occurred at the time.

Which choice completes the text with the most logical and precise word or phrase?

A. dubious

B. advantageous

C. incontrovertible

D. credible

5

Published in 1973, The Sign of the Chrysanthemum was Katherine Paterson's debut novel. A debut novel is the first book that an author publishes. Authors who are successful with their debut novel will often publish more novels. For example, Paterson published additional novels, including the 1977 novel Bridge to Terabithia.

Which choice best describes the function of the underlined sentence?

A. It suggests that Paterson should write more novels.

B. It describes how authors write novels.

C. It gives the title of Paterson's debut novel.

D. It explains what a debut novel is.

6

Archaeologist Yijie Zhuang and colleagues uncovered a network of ceramic pipes and drainage ditches in China that date back to the Longshan period (about 4,000 years ago). The system's complexity would have required a highly advanced level of community-wide planning, but there is no evidence of a centralized authority that could have overseen such planning. The intricacy of the network refutes the common view that only a centralized governing power would be able to gather the resources to build such a complex water-management system.

Which choice best describes the overall structure of the text?

A. It describes a discovery made by Zhuang and colleagues, notes important contextual information about that discovery, and then explains a potential implication of that discovery and contextual information.

B. It introduces an unusual aspect of an ancient water system in China, offers a hypothesis about how that aspect came to be, and then signals future research that might bolster that hypothesis.

C. It summarizes a conclusion reached by Zhuang and colleagues, acknowledges a counterargument to that conclusion, and then refutes that counterargument with additional evidence.

D. It highlights an ancient water-management system discovered in China, points out a significant feature of that system, and then provides additional information clarifying the function of that feature.

7

Information from the Great Sunflower Project helps scientists address pollinator population-size declines caused by habitat loss. Participants monitor which pollinators visit specific plants and the frequency of those visits. Scientists then use this information to determine which plant species best support pollinators and identify where those plant species have declined. Without bees, butterflies, and other pollinators performing their vital role in plant reproduction and food production, ecosystems would suffer—making the conservation efforts informed by this citizen science project all the more important!

According to the text, why is the information collected by the Great Sunflower Project valuable?

A. It helps scientists determine which flowers produce the most honey when visited by bees.

B. It helps project participants demonstrate that butterfly population sizes are growing faster than bee population sizes.

C. It helps gardeners learn how to grow larger sunflowers through better pollination.

D. It helps scientists develop strategies for addressing pollinator habitat loss.

8

Minimum and Maximum Depths of Stony Coral Species in Caribbean and Indo-Pacific Waters

Species	Minimum depth (meters)	Maximum depth (meters)
Astreopora gracilis	5	15
Acropora lokani	8	25
Heliofungia fralinae	3	27
Agaricia grahamae	20	115

Some scientists have suggested that as ocean temperatures rise, many fish and corals found in the shallow zone (less than 30 meters below the surface) could take refuge in the cooler, darker mesophotic zone (30 to 150 meters below the surface). However, it isn't clear that all such species will be able to tolerate mesophotic conditions. In 2018, Luiz Rocha and colleagues studied stony corals in the two zones in Caribbean and Indo-Pacific waters. Based on the depths at which those corals are now found, the species that seems best suited to a full migration to the mesophotic zone is _____

Which choice most effectively uses data from the table to complete the statement?

A. Acropora lokani, because its maximum depth is closest to the point where the shallow zone and mesophotic zone meet.

B. Agaricia grahamae, because it's already found in the shallow zone and relatively deep in the mesophotic zone.

C. Astreopora gracilis, because its minimum depth isn't the shallowest of those listed.

D. Heliofungia fralinae, because it's found at a wide range of depths in the shallow zone.

9

"The Monster" is an 1898 story by Stephen Crane. In the story, whenever Jimmie, a young boy, has been scolded by his father for misbehavior, he seeks comfort from Henry Johnson, the man responsible for the care of Jimmie's father's horses. However, Henry does not always provide such comfort; Crane suggests this by writing, _____

Which quotation from "The Monster" most effectively illustrates the claim?

A. "Henry would sometimes choose to absolutely repudiate [Jimmie's behavior], and when Jimmie appeared in his shame would bully him most virtuously, preaching with assurance the precepts of [Jimmie's father's] creed, and pointing out to Jimmie all of his abominations."

B. "In regard to almost everything in life [Jimmie and Henry] seemed to have minds precisely alike."

C. "For a minute Jimmie refused to take an interest in anything. He was very downcast."

D. "Henry… could usually provide a sin to place himself on a footing with the disgraced one. Perhaps he would remember that he had forgotten to put the hitching-strap in the back of the buggy on some recent occasion, and had been reprimanded by [Jimmie's father]."

10

As of 2023, South Korea has 660 kilometers of high-speed rail lines in operation and 1,630 kilometers under construction; in Spain, 4,327 kilometers are in operation with 1,378 kilometers under construction. In contrast, the United States has a relatively low amount of high-speed rail for its size: only 735 kilometers of high-speed rail in operation and 1,789 kilometers under construction. Many US transportation experts argue that this should change, claiming that high-speed rail is more cost-effective than highway systems are.

Which finding, if true, would most directly support the US transportation experts' claim?

A. Building successful high-speed rail infrastructure would require that the US government establish a fund to maintain the rail lines long-term.

B. In much of the US, the existing rail infrastructure is so old that it would have to be replaced entirely in order to accommodate high-speed trains.

C. In most locations in the US, increasing highway capacity is more expensive relative to the volume of traffic that can be accommodated than increasing high-speed rail capacity is.

D. Unlike people in the United States, people in South Korea and Spain are less interested in traveling by highway than they are in traveling by high-speed rail.

11

A student is writing an essay on the subject of cultured meat, which is grown in a laboratory and is intended to help reduce the number of livestock harvested for food. The student wants to make the case that cultured meat production may be useful in responding to an expected widespread change in the public's behavior.

Which quotation from a publication by a researcher would most effectively support the student's claim?

A. "Researchers who advocate for the development of lab-grown meat claim that it's better for the environment than conventional meat because it requires less water consumption."

B. "A difficulty in developing lab-grown meat that successfully imitates meat from livestock is in mimicking the way oxygen spreads through tissue in living animals."

C. "Consumers tend to believe that using less packaging when selling meat products in stores would have a significant effect on the environment."

D. "A growing population that is including significantly more meat in its diet will contribute to an increasing demand for meat products in the 21st century."

12

The roseate spoonbill and the glossy ibis are long-legged birds that live in wetlands, like the Everglades in Florida. Laura D'Acunto and colleagues wanted to know how these birds choose an area in which to live. They looked at features of these birds' habitats, such as how quickly water drains from the area and the amount of tree-canopy cover there is in the area. They found that roseate spoonbills prefer areas with extensive canopy cover, but this was not true for glossy ibises. The researchers therefore concluded that wetland-management strategies that increase the amount of tree canopy in potential wetland bird habitats are less likely to _____

Which choice most logically completes the text?

A. attract glossy ibises to the area than they are to attract roseate spoonbills to the area.

B. attract birds that don't typically live in wetlands to the area than they are to attract roseate spoonbills or glossy ibises to the area.

C. decrease the area's appeal to both roseate spoonbills and glossy ibises than they are to increase the appeal to other species.

D. extend the average lifespan of roseate spoonbills already in the area than they are to attract a greater number of those birds to the area.

13

The state of Michigan has classified the balsam woolly adelgid as an invasive species that could outcompete some of the state's native species. But researchers Alejandro Camacho and Jason McLachlan have pointed out that Earth's climate is changing in ways that challenge such classifications. Climate changes may cause animals to leave their current ranges and establish new ones. Climate changes may also create good habitats in areas where a species couldn't live previously. These observations suggest that _____

Which choice most logically completes the text?

A. Michigan may come to find that categorizing the balsam woolly adelgid as invasive no longer reflects environmental reality.

B. even if Earth's climate doesn't change in the way scientists predict, the balsam woolly adelgid will likely establish itself in Michigan.

C. Michigan was previously home to some balsam woolly adelgids but they were outcompeted by invading species.

D. it's useful at present for Michigan to distinguish between invasive and native species in some instances but not in the case of the balsam woolly adelgid.

14

To investigate the root of people's resistance to AI-created art, researchers conducted a study in which participants rated a series of AI-generated paintings that were randomly labeled as either "human-created" or "AI-created." Unsurprisingly, participants consistently gave higher scores to those labeled as human-created. One explanation for this is the effort heuristic effect, whereby awareness of the effort invested in a work of art enhances people's appreciation of it. Interestingly, this tendency might also be exploited to mitigate the bias against AI-created art: in another study, participants who had watched videos of robots creating paintings rated the AI-created paintings more favorably than did participants who hadn't watched them, presumably because the videos _____

Which choice most logically completes the text?

A. challenged the assumption that the AI's artistic process involved little to no labor.

B. allayed anxieties about AI replacing human artists.

C. acknowledged the influence of human-created art on the AI-created paintings.

D. attributed a degree of intentionality to the AI.

15

The Indus Valley civilization, which flourished in South Asia from around 2500 to 1900 BCE, was known for its advanced textile arts. Its people _____ tussah silk using a distinctive method that allowed the silk-producing moths to complete their life cycle and emerge from cocoons before the silk fibers were harvested.

Which choice completes the text so that it conforms to the conventions of Standard English?

A. are producing

B. produced

C. will produce

D. produce

16

In his experimental approach to reconciling quantum mechanics and general relativity, Craig Hogan, a theoretical _____ the director of the Fermi National Accelerator Laboratory, constructed a holometer to detect whether space itself has a quantum structure.

Which choice completes the text so that it conforms to the conventions of Standard English?

A. astrophysicist,

B. astrophysicist

C. astrophysicist and

D. astrophysicist and,

17

Al-Muwatta of Imam Malik is one of the hundreds of thousands of manuscripts that have survived from roughly the sixteenth century to the present _____ being passed down through private libraries in the city of Timbuktu, Mali. Many of these manuscripts can be found at the Ahmad Boularaf Library.

Which choice completes the text so that it conforms to the conventions of Standard English?

A. day; by

B. day by,

C. day by

D. day. By

18

Inspired by the region's sandstone cliffs and variegated mesas, _____ from which she sources many of her dyes.

Which choice completes the text so that it conforms to the conventions of Standard English?

A. D.Y. Begay uses rich, saturated colors in her tapestries to depict the landscape of her Navajo Tsélání homeland,

B. the landscape of D.Y. Begay's Navajo Tsélání homeland is depicted in rich, saturated colors in her tapestries,

C. D.Y. Begay uses rich, saturated colors to depict the landscape of her Navajo Tsélání homeland in her tapestries,

D. D.Y. Begay's tapestries depict the landscape of her Navajo Tsélání homeland using rich, saturated colors,

---

19

Canada's 1867 constitution contains one of the six constitutional features that enhance judicial independence, as identified by legal scholars James Melton and Tom Ginsburg. Since 1985, such de jure judicial independence has become more prevalent among _____ Fiji's constitution contains four such features.

Which choice completes the text so that it conforms to the conventions of Standard English?

A. constitutions; enacted in 2013,

B. constitutions, enacted in 2013,

C. constitutions enacted in 2013;

D. constitutions, enacted in 2013;

20

While the greater adjutant (Leptoptilos dubius) can be found in places like the Central Tanintharyi Coast in Myanmar and Tram Chim in Vietnam, more than 80 percent of this endangered stork species is found in Assam, India. There, wildlife _____ is on the front lines of conservation efforts to bring adjutants back from near extinction.

Which choice completes the text so that it conforms to the conventions of Standard English?

A. biologist, Dr. Purnima Devi Barman

B. biologist: Dr. Purnima Devi Barman

C. biologist, Dr. Purnima Devi Barman,

D. biologist Dr. Purnima Devi Barman

21

Indonesia ratified the Outer Space Treaty, an international agreement with over 100 signing nations that acts as the foundation for the laws of space, on January 27, 1967. Haiti signed the treaty; _____ it has yet to officially ratify it.

Which choice completes the text with the most logical transition?

A. specifically,

B. however,

C. similarly,

D. for example,

22

The Beatrice, an offshore wind farm located off the coast of Scotland, produces about 588 megawatts (MW) of electricity per year. _____ England's Hornsea Project One offshore wind farm, which generates the most power of any single offshore farm, produces 1,218 MW of electricity.

Which choice completes the text with the most logical transition?

A. As a result,

B. That is,

C. By comparison,

D. For instance,

23

The eruption of Bead Geyser in Yellowstone National Park is caused by a sequence of events. First, water seeps down through narrow channels in the bedrock. _____ magma heats the water and turns it into steam. Finally, that steam builds up enough pressure in the narrow channels to force the water above it to burst out of the ground.

Which choice completes the text with the most logical transition?

A. On the contrary,

B. First of all,

C. Next,

D. Similarly,

24

As part of a study, participants were asked to list animals they thought of as "charismatic," which was defined as "attractive, fascinating, or appealing." Researchers compiled the responses into a single list and found that the elephant and the crocodile both landed in the top twenty. _____ no animal outranked the tiger.

Which choice completes the text with the most logical transition?

A. Nevertheless,

B. Therefore,

C. For example,

D. In other words,

25

While researching a topic, a student has taken the following notes:

- From the 1930s to the 1960s, movie theaters in Black communities often created new versions of posters for films to promote Black actors and themes relevant to Black audiences.
- The original studio poster for Imitation of Life (1934) did not credit any of the film's Black actors.
- A poster at a Black-owned theater in Harlem, New York, gave top billing to the film's Black star, Louise Beavers, and highlighted the film's theme of Black American identity.
- According to media historian Ellen Scott, such revisions "centralized African American narrative presence and subjectivity."

The student wants to compare the studio poster for Imitation of Life to the Harlem theater poster. Which choice most effectively uses relevant information from the notes to accomplish this goal?

A. The Harlem theater's poster gave equal billing to all the film's stars—including Beavers—while highlighting themes of Black American identity.

B. Compared to the Harlem theater poster, the studio poster gave far less attention to Beavers, listing her name but not identifying her as one of the film's stars.

C. While the studio poster did not even name the film's Black actors, the Harlem poster promoted both Beavers and the film's theme of Black American identity.

D. The Harlem theater poster promoted the film's Black star and the film's relevance to Black audiences; thus, it "centralized African American narrative presence and subjectivity."

26

While researching a topic, a student has taken the following notes:

- Most of the plant and bird species in Oahu, Hawaii, are non-native.
- In a 2019 study, researchers wanted to know what role non-native birds play in dispersing plant seeds in Oahu.
- Researchers catalogued plant seeds found in fecal samples from non-native birds.
- Leptecophylla tameiameiae, a flowering shrub, was one of fifteen native species catalogued.
- Schinus terebinthifolia, a tree, was one of twenty-nine non-native species catalogued.
- Researchers concluded that non-native birds play a vital role in dispersing the seeds of native and non-native plants.

The student wants to emphasize a difference between the two plants. Which choice most effectively uses relevant information from the notes to accomplish this goal?

A. A 2019 study catalogued plant seeds found in bird fecal samples in Oahu, Hawaii, to determine what role non-native birds play in seed dispersal.

B. Though Leptecophylla tameiameiae and Schinus terebinthifolia can both be found in Oahu, Hawaii, only the former plant is native.

C. Seeds from Leptecophylla tameiameiae and Schinus terebinthifolia plants were found in the fecal samples of non-native Hawaiian birds, according to a 2019 study.

D. Most plant species found in Oahu, Hawaii, like Schinus terebinthifolia, are non-native.

27

While researching a topic, a student has taken the following notes:

- 1992 was the 500th anniversary (quincentennial) of Columbus's first voyage to the Americas.
- 1992: Native artist Jaune Quick-to-See Smith (Confederated Salish and Kootenai Tribes) curated a traveling art exhibition titled The Submuloc Show/Columbus Wohs.
- Smith called the exhibition "a visual commentary on the Columbus quincentennial from the perspective of America's first people."
- In a 2020 article, art historian Ariel Bonilla analyzed Smith's response to the Columbus quincentennial celebration.
- Bonilla: "Smith used her curatorial role to create a counter-narrative…visualizing the Native American survival of Columbian conquest."
- Bonilla: Smith's show was "disinterested in financial gain as a primary or even secondary motivation."

The student wants to use a quotation from Bonilla to explain Smith's motivation for curating the show. Which choice most effectively uses relevant information from the notes to accomplish this goal?

A. According to Bonilla, Smith curated The Submuloc Show/Columbus Wohs as "a visual commentary on the Columbus quincentennial from the perspective of America's first people."

B. According to Bonilla, Smith was "disinterested in financial gain as a primary or even secondary motivation" in her curation of the exhibition, a celebration of the 500th anniversary of Columbus's first voyage to the Americas.

C. According to Bonilla, Smith's "primary or even secondary motivation" for curating the show was to analyze Columbus from the perspective of a Native artist.

D. According to Bonilla, Smith curated the exhibition to "create a counter-narrative" in response to the Columbus quincentennial, one focused instead on "Native American survival."

STOP

If you finish before time is called, you may check your work on this module only. Do not turn to any other module in the test.

Section 1, Module 2: Reading and Writing

27 QUESTIONS • 32 MINUTES

DIRECTIONS

The questions in this section address a number of important reading and writing skills. Each question includes one or more passages, which may include a table or graph. Read each passage and question carefully, and then choose the best answer to the question based on the passage(s).

All questions in this section are multiple-choice with four answer choices. Each question has a single best answer.

Section 1, Module 2: Reading and Writing

1

The following text is adapted from Yone Noguchi's 1914 memoir *The Story of Yone Noguchi*. Noguchi is returning home after eleven years abroad.

I reached Tsushima, my native town, at evening.

I frightened my old father at the station, who was actually trying to find me among some other people. There is no wonder that he could not recognise me; I must have changed a great deal.

As used in the text, what does the word "find" most nearly mean?

A. Discredit

B. Reveal

C. Convince

D. Locate

2

The following text is from Lilliam Rivera's 2020 novel *Never Look Back*. The text describes the narrator's friend Pheus, a young musician, after finishing a performance during a church service.

Pheus pulls a handkerchief from his back pocket and wipes his forehead. I mime a quiet clap for him. He does a slight bow and flashes his dimples. This is where Pheus truly shines. When Pheus is in front of an audience, it's as if he becomes another person, a more heightened version of himself.

©2020 by Lilliam Rivera

As used in the text, what does the word "quiet" most nearly mean?

A. Broken

B. Reasonable

C. Balanced

D. Silent

3

The sloping tile roofs and picturesque façade of Mission La Purísima Concepción in Lompoc, California, are enduring symbols of the Spanish contribution to Californian architecture. Elements of this style have been _____ throughout the state—the design of the Lederer Stables in Los Angeles, for example, is considered to emulate the style of the Spanish missions.

Which choice completes the text with the most logical and precise word or phrase?

A. archived

B. underemphasized

C. reproduced

D. simplified

4

Edmund Morris's biography of Thomas Edison exhaustively recounts episodes such as Edison's first patent, his creation of a carbon-filament electric light bulb, and his codevelopment of a motion picture camera. Strangely, however, it relates those events in reverse chronological order, a notably _____ approach that one reviewer described as reducing comprehension and gaining nothing in return.

Which choice completes the text with the most logical and precise word or phrase?

A. comprehensive

B. ideal

C. traditional

D. unconventional

5

In the early 1800s, New York City had a problem. The city was growing fast, but it didn't have enough clean water for everyone. In 1842, engineers built the Croton Aqueduct to bring fresh water from forty miles away. This solution gave clean water to hundreds of thousands of people.

Which choice best describes how the text is organized?

A. It describes a city and then lists the benefits of living there.

B. It names an inventor and then describes their invention.

C. It states a problem and then describes the solution.

D. It asks a question and then answers the question.

6

Popularized in sixteenth- and seventeenth-century England by such poets as William Shakespeare and Mary Wroth, the sonnet sequence (a series of fourteen-line poems unified by overarching thematic concerns) remains a prevalent poetic genre. Although the sonnet's intricate, rule-bound structure makes writing even one sonnet—let alone an entire series—intrinsically challenging, more recent poets from Gwendolyn Brooks to Brandy Nālani McDougall have undertaken sonnet sequences, likely in part because of the opportunity the genre presents for showcasing a poet's virtuosity and ingenuity.

Which choice best states the main purpose of the text?

A. To enumerate the structural features of sonnet sequences that make them challenging to compose

B. To contrast the more creative sonnet sequences of Brooks and McDougall with the more conventional ones of Shakespeare and Wroth

C. To describe some of the innovations Brooks and McDougall have introduced to the sonnet sequence

D. To suggest a reason for the enduring appeal of the sonnet sequence among poets despite its challenging form

7

Text 1

In 2012 Jeonju, South Korea, was named a City of Gastronomy by UNESCO in recognition of the city's unique food culture. The honor is well known among both residents of the city and tourists who visit. Simply by selecting Jeonju, UNESCO has helped bring awareness to local recipes, cooking practices, and chefs and has provided a significant boost to the city's tourism industry.

Text 2

Many people in Jeonju's restaurant industry hoped that food tourism would increase after the city was chosen as a City of Gastronomy in 2012. However, as researcher Eerang Park and colleagues argue, cities must still create effective marketing strategies to benefit fully from being named a City of Gastronomy. Without the intentional effort that was made to promote the city's food scene, many current and potential visitors to Jeonju would not even be aware that it's home to uniquely delicious food.

Which choice best describes a difference in how the authors of the texts view the benefits of being named a City of Gastronomy?

A. The author of Text 1 considers the effects of Jeonju's City of Gastronomy status to be less permanent than the author of Text 2 considers them to be.

B. The author of Text 1 views Jeonju's status as a City of Gastronomy as having been beneficial for the city, but the author of Text 2 questions whether there's been a benefit.

C. The author of Text 1 assumes that a city's restaurant owners and chefs are most likely to benefit from a city being named a City of Gastronomy, but the author of Text 2 states that the honor most affects tour guides and tour operators.

D. The author of Text 1 states that the benefits are automatic, while the author of Text 2 states that effort is required to fully achieve the benefits.

8

In rainforests in Costa Rica, soil mats form in the branches (or canopy) of large bully trees. Dead leaves and other organic materials collect in their branches and break down, forming mats of canopy soil. In a 2008 study, Catherine L. Cardelús and her team indicate that canopy soil is valuable for maintaining a healthy water cycle in the forest.

According to the text, how does canopy soil benefit the forest?

A. It helps maintain a healthy water cycle.

B. It is very rich in nutrients.

C. It helps spread seeds of bully trees.

D. It is home to many living things.

9

Like all species of baleen whales, the humpback whale feeds on tiny creatures known as krill by filtering water through bristlelike keratin structures called baleen plates. In this way, baleen whales can eat up to 30 percent of their total mass per day. And while no one would call the humpback whale small—it can have a mass as high as 30,000 kg—it is one of the smaller baleen whales and is much smaller than the fin whale, which can weigh a whopping 80,000 kg and consume as much as 24,000 kg of krill per day.

Based on the text, what can most reasonably be concluded about krill consumption among humpback and fin whales?

A. Most baleen whales include krill in their diets, but the humpback whale is less likely than the fin whale to do so.

B. The fin whale is able to eat more krill per day than the humpback whale is.

C. Both the humpback whale and the fin whale can eat as much as 24,000 kg of krill per day.

D. The quantities of krill consumed by fin whales has made it difficult for humpback whales to find sufficient food.

10

The following text is from Nathaniel Hawthorne's 1830 short story "Sir William Phips."

The knowledge, communicated by the historian and biographer, is analogous to that which we acquire of a country by the map,—minute, perhaps, and accurate, and available for all necessary purposes, but cold and naked, and wholly destitute of the mimic charm produced by landscape painting. These defects are partly remediable, and even without an absolute violation of literal truth, although by methods rightfully interdicted to professors of biographical exactness.

Which choice best states the main idea of the text?

A. Historians' fidelity to the truth often results in work that is less engaging than it could be.

B. Maps are more practical to own than paintings.

C. Historians do not agree among themselves about the best methods of recording history.

D. Biographers are more-skilled writers than other kinds of historians.

11

Enacted in societies as disparate as early modern Florence and Ming China, sumptuary laws—restrictions on personal spending on luxury—often focused on matters of dress, such as the patterns and motifs allowed for different social classes. In the early modern European context, such laws were meant to keep appearance consistent with class status. However, creativity posed an ongoing challenge: new modes of dress not covered by the laws would emerge and be adopted across social classes. Despite frequent revision, sumptuary laws struggled to keep pace with the flourishing European fashion industry.

Which choice best states the central idea of the text?

A. Though the European fashion industry initially presented a challenge to early modern sumptuary laws, the unprecedented variety of clothing the industry produced ultimately demonstrated why such laws were needed.

B. Though early modern sumptuary laws were intended to reinforce social distinctions, these laws were undermined by constantly changing forms of dress that were also widely available.

C. Early modern sumptuary laws initially regulated the patterns and motifs of clothing but expanded to address any features that might indicate the wearer's class status.

D. The European fashion industry was created as a direct response to the restrictions imposed by early modern sumptuary laws as makers designed styles of dress that exploited loopholes in these laws.

12

Percentage of City's Commuters Regularly Biking to Work in 2016

City	% of commuters
Phoenix, Arizona	0.6
Portland, Oregon	6.3
Tucson, Arizona	2.5
Davis, California	16.6

In the table, the city with the highest percentage of commuters regularly biking to work in 2016 is _____

Which choice most effectively uses data from the table to complete the statement?

A. Davis, California.

B. Phoenix, Arizona.

C. Portland, Oregon.

D. Tucson, Arizona.

13

The Ascent of Ethiopia is a painting by Lois Mailou Jones, dated 1932. It's part of the full collection of the Milwaukee Art Museum in Milwaukee, Wisconsin. A digital image of it can also be found in an online collection. In a paper, a student claims that people usually spend more time viewing a work of art in a museum than they do online.

Which finding, if true, would most directly support the underlined claim?

A. More than one museum has works of art by Lois Mailou Jones in its full collection.

B. *The Ascent of Ethiopia* isn't the only work of art by Lois Mailou Jones that has been put online.

C. Most people spend about three minutes viewing *The Ascent of Ethiopia* at the museum and only about one minute viewing it online.

D. Most people who go to museums in Milwaukee are visiting from other places.

14

Examples of Hoards found in Ireland and Northern Ireland

Hoard name	Date of contents	Year of discovery	Description
Coleraine Hoard	5th century CE	1854	silver pieces
Derrynaflan Hoard	10th century CE	1980	silver and bronze pieces

Dooyork Hoard	3rd century BCE–2nd century CE	2001	gold, bronze, and beads

Deposits of valuable objects, called hoards, have been unearthed in many different parts of Ireland and Northern Ireland. Technological advancements in the twenty-first century have made it easier to locate hoards, but plenty of hoards were found earlier. For example, _____

Which choice most effectively uses data from the table to complete the statement?

A. the Derrynaflan Hoard was found in 1854.

B. Derrynaflan Hoard and Dooyork Hoard were both discovered in the 1900s.

C. the Coleraine Hoard and Derrynaflan Hoard were both found before 2000.

D. the Coleraine Hoard, Derrynaflan Hoard, and Dooyork Hoard have all been found since 1854.

15

Solar Transmittance of Window Films

Film type	Solar transmittance
No film	83%
Film A	7%
Film H	23%
Film M	33%
Film O	43%

To keep the inside of a senior center cool, a technician is installing film on the windows. The table shows the solar transmittance of several types of film and the solar transmittance without film. A lower percentage means the film blocks more solar energy, causing less heat inside. To achieve the greatest reduction in solar energy passing through, the technician decides to use _____

Which choice most effectively uses data from the table to complete the statement?

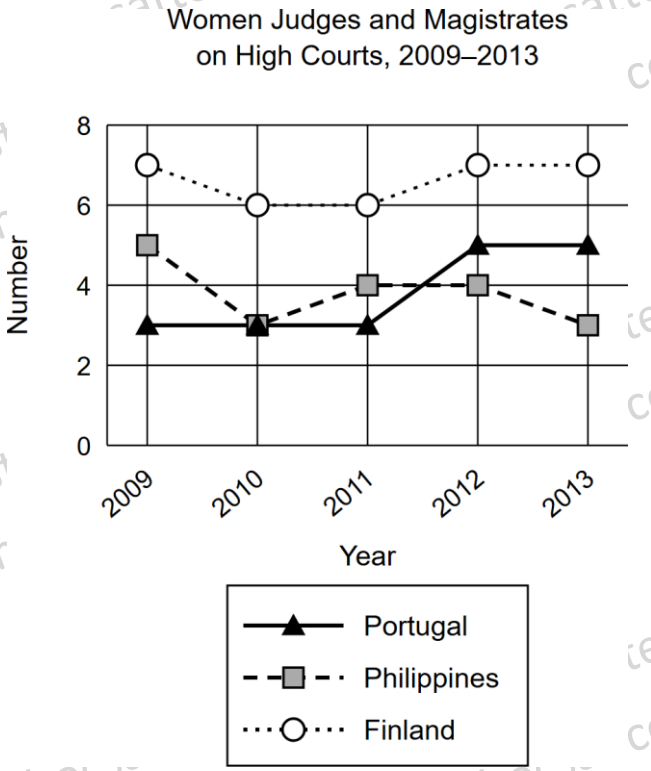
A. Film H.

B. Film O.

C. Film A.

D. Film M.

16



A report from an international organization that monitors the numbers of women serving as judges or magistrates on various nations' highest courts, such as the Supreme Court in Finland and the Supreme Court in the Philippines, indicates that among the countries that had a different number of women on these courts in 2013 than they had in 2009, the number increased in some countries but decreased in others. For instance, the number of women judges and magistrates on high courts in _____

Which choice most effectively uses data from the graph to complete the example?

A. the Philippines was lower in 2013 than in 2009, whereas the number in Finland was the same in 2013 as in 2009.

B. Finland was the same in 2013 as in 2009, but it had more women on its high courts than either Portugal or the Philippines did in 2013.

C. Portugal was greater in 2013 than in 2009, whereas the number in Finland was the same in 2013 as in 2009.

D. Portugal was greater in 2013 than in 2009, whereas the number in the Philippines was lower in 2013 than in 2009.

17

Completed in 1885, Vincent van Gogh's drawing *Seated Woman* is less well known than his _____ it is still considered by scholars to be an important work.

Which choice completes the text so that it conforms to the conventions of Standard English?

A. paintings,

B. paintings, but

C. paintings

D. paintings but

18

Over the years, dozens of architectural and archaeological sites important to Hawaiian history and culture, such as Haleki'i-Pihana Heiau and the Wailuku Civic Center Historic District, have been added _____ the Hawai'i Register of Historic Places. After being reviewed by a board of experts that includes sociologist Alton Okinaka and architect Katie Stephens, additional sites are added to the registry each year.

Which choice completes the text so that it conforms to the conventions of Standard English?

A. to

B. to;

C. to:

D. to,

19

Many skyscrapers are constructed _____ a strong and durable metal called carbon steel. Carbon steel is created by mixing iron and small amounts of carbon.

Which choice completes the text so that it conforms to the conventions of Standard English?

A. with

B. with,

C. with:

D. with;

20

Among the rarities held by the US Library of Congress is one of the smallest printed books in the world: *Old King Cole*, a version of the children's nursery rhyme. _____ by the Gleniffer Press in 1985, this tiny volume measures just one millimeter in length and width.

Which choice completes the text so that it conforms to the conventions of Standard English?

A. Publish

B. Publishes

C. Published

D. Publishing

21

Quality metrics help quantify project performance against established standards. Depending on which project metrics are most relevant, project management professionals might track and report such metrics as _____ on-time delivery rates. These data provide objective measurements for evaluating both process and product quality.

Which choice completes the text so that it conforms to the conventions of Standard English?

A. defect density, customer satisfaction and,

B. defect density, customer satisfaction, and

C. defect density; customer satisfaction, and

D. defect density, customer satisfaction; and

22

When using summer grape for dyeing cloth, textile artists first soak it in water to release its color. Next, they add the cloth to the dyebath and simmer it for hours, perhaps even days. _____ they remove the cloth from the dyebath, revealing that the cloth has turned a vibrant blue color.

Which choice completes the text with the most logical transition?

A. However,

B. Finally,

C. Therefore,

D. Actually,

23

Norman Aisen has worked at NASA's famed Jet Propulsion Laboratory (JPL), one of the world's leading facilities for robotic space exploration. _____ Aisen worked as a spacecraft mechanical engineer on the JPL's Mars 2020 Perseverance rover team, which improved upon the 2011 Curiosity rover design by adding a coring drill to the robot that could collect rock samples for later analysis.

Which choice completes the text with the most logical transition?

A. Specifically,

B. Finally,

C. Conversely,

D. Nevertheless,

24

While researching a topic, a student has taken the following notes:

- A walking stick is an insect that looks like a small twig or stick.
- Walking sticks move slowly and sway as they move.

- This allows them to blend in with twigs and branches.

The student wants to explain why walking sticks move the way that they do. Which choice best uses information from the notes to do this?

A. Walking sticks have long and slender legs.

B. Walking sticks eat leaves from plants they find in their wooded habitats.

C. Walking sticks live mostly in trees and bushes to hide from other insects.

D. Walking sticks move slowly and sway to blend in with twigs and branches.

25

While researching a topic, a student has taken the following notes:

- *The End* is a 2010 sculpture by Korean artist Jung Lee.
- It is crafted from blue neon lighting that spells out the title phrase (“the end”).
- *Neon for La Jolla* is a 1984 sculpture by American artist Stephen Antonakos.
- It is crafted from pink neon lighting that forms a series of abstract shapes.

The student wants to emphasize a similarity between the two sculptures. Which choice most effectively uses relevant information from the notes to accomplish this goal?

A. Antonakos’s sculpture *Neon for La Jolla* consists of pink neon lighting in a series of abstract shapes.

B. Rather than spelling out a phrase, Antonakos’s sculpture forms a series of abstract shapes.

C. Both Lee’s and Antonakos’s sculptures are crafted from neon lighting.

D. The neon lighting in *The End* is blue, but the lighting in *Neon for La Jolla* is pink.

26

- A copyright prevents a book’s contents from being reproduced (published) without permission from the copyright holder.
- When a book’s copyright expires, the book enters the public domain.
- Public domain books can be legally reproduced by anyone.
- *On a Grey Thread* is a poetry collection by Elsa Gidlow.
- It was published in 1923 and entered the public domain on January 1, 2019 (ninety-six years later).

Which choice most effectively uses information from the given sentences to explain why *On a Grey Thread* entered the public domain?

A. Before *On a Grey Thread* entered the public domain, only its copyright holder could give permission for others to reproduce its contents.

B. *On a Grey Thread*, a poetry collection by Elsa Gidlow, is freely available to the public.

C. The copyright to *On a Grey Thread* expired in 2019, causing the poetry collection to enter the public domain.

D. Once *On a Grey Thread* entered the public domain, anyone could publish its contents.

27

While researching a topic, a student has taken the following notes:

- Joeun Kim Aatchim is a Korean-born, New York–based visual artist.
- She has a condition known as stereo blindness, which means her eyes don't fully sync to form an image.
- Rather than drawing subjects while looking at them, she relies on an accumulation of visual memory.
- Her drawings feature transparent, overlapping images of their subjects and thus have a hazy appearance.
- *Transparency* (2019) features a woman shown from several perspectives.
- *Two Mini Lilies* (2019) features a pair of lilies in separate glass vases.

The student wants to describe Aatchim's artistic process. Which choice most effectively uses relevant information from the notes to accomplish this goal?

A. Aatchim, whose drawing *Two Mini Lilies* features a pair of lilies in separate glass vases, has stereo blindness, which means her eyes don't fully sync to form an image.

B. Aatchim's drawings, created from visual memory, feature transparent, overlapping images of their subjects.

C. Aatchim, who has stereo blindness, doesn't draw while looking at her subjects, relying instead on an accumulation of visual memory.

D. The Korean-born, New York–based Aatchim drew *Transparency* in 2019; depicted in the drawing is a woman shown from several perspectives.

STOP

If you finish before time is called, you may check your work on this module only. Do not turn to any other module in the test.

Section 2, Module 1: Math

22 QUESTIONS • 35 MINUTES

DIRECTIONS

The questions in this section address a number of important math skills.

Use of a calculator is permitted for all questions. A reference sheet and these directions can be accessed throughout the test.

NOTES

Unless otherwise indicated:

- All variables and expressions represent real numbers.
- Figures provided are drawn to scale.
- All figures lie in a plane.
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For multiple-choice questions, solve each problem and choose the correct answer from the choices provided. Each multiple-choice question has a single correct answer.

- For student-produced response questions, solve each problem and enter your answer as described below.
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- You can enter up to 5 characters for a positive answer and up to 6 characters (including the negative sign) for a negative answer.
- If your answer is a fraction that doesn't fit in the provided space, enter the decimal equivalent.
- If your answer is a decimal that doesn't fit in the provided space, enter it by truncating or rounding at the fourth digit.
- If your answer is a mixed number (such as $3\frac{1}{2}$), enter it as an improper fraction ($7/2$) or its decimal equivalent (3.5).
- Don't enter symbols such as a percent sign, comma, or dollar sign.

REFERENCE

$A = \pi r^2, C = 2\pi r$	Circle
$A = \ell w$	Rectangle
$A = \frac{1}{2}bh$	Triangle
$c^2 = a^2 + b^2$	Pythagorean theorem
Special right triangles: $30°$-$60°$-$90°$ with sides x, $x\sqrt{3}$, $2x$; $45°$-$45°$-$90°$ with sides s, s, $s\sqrt{2}$	
$V = \ell wh$	Rectangular prism
$V = \pi r^2 h$	Cylinder
$V = \frac{4}{3}\pi r^3$	Sphere
$V = \frac{1}{3}\pi r^2 h$	Cone
$V = \frac{1}{3}\ell wh$	Pyramid

- The number of degrees of arc in a circle is 360.
- The number of radians of arc in a circle is 2π.
- The sum of the measures in degrees of the angles of a triangle is 180.

Section 2, Module 1: Math

1

The perimeter of an isosceles triangle is 73 inches. Each of the two congruent sides of the triangle has a length of 24 inches. What is the length, in inches, of the third side?

2

$$x = 7$$

$$y = x^2 + 5$$

The graphs of the given equations in the xy-plane intersect at the point (x, y). What is the value of y?

A. -2

B. 14

C. 25

D. 54

3

In a right triangle, the measure of one of the acute angles is $31°$. What is the measure, in degrees, of the other acute angle?

A. 31

B. 59

C. 62

D. 149

4

If $16x = 13x + 15$, what is the value of $5x$?

5

The function f defined by $f(t) = 11t + 6$ gives the estimated length, in inches, of a pothos plant t months after Malcolm purchased it. Which of the following is the best interpretation of 6 in this context?

A. The estimated length of the pothos plant was 6 inches when Malcolm purchased it.

B. The pothos plant is expected to grow to a maximum length of 6 inches.

C. The pothos plant is expected to grow 6 inches each month.

D. Malcolm will keep the pothos plant for 6 months.

6

$$y = 22^x$$

Which table gives three values of x and their corresponding values of y for the given exponential equation?

A.

x	y
0	0
1	22
2	10,648

B.

x	y
0	22
1	22
2	44

C.

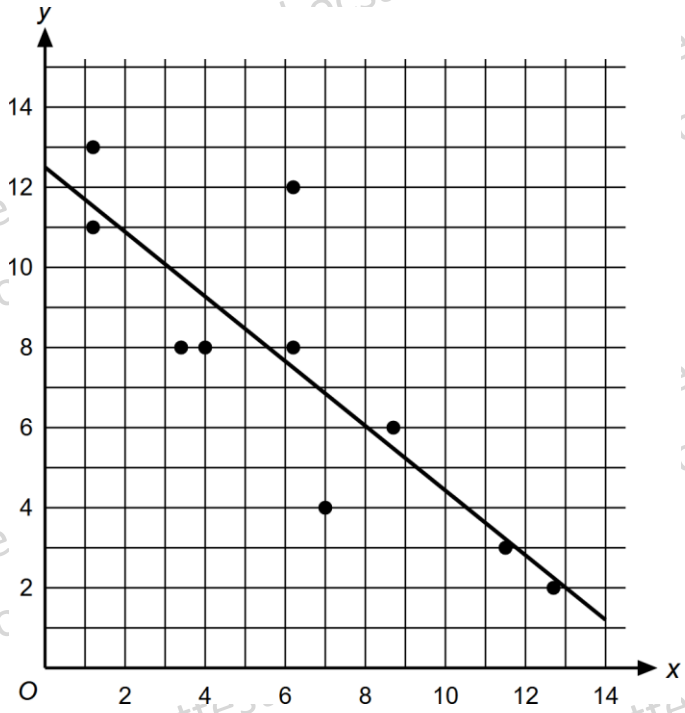
x	y
0	1
1	22
2	484

D.

x	y
0	1
1	22
2	44

7

The scatterplot shows the relationship between two variables, x and y. A line of best fit is also shown.



Which of the following is closest to the slope of the line of best fit shown?

A. -2.4

B. -0.8

C. 0.8

D. 2.4

8

The graph of the exponential function f in the xy-plane, where $y = f(x)$, has a y-intercept of $(0, 25)$. Which of the following must be true?

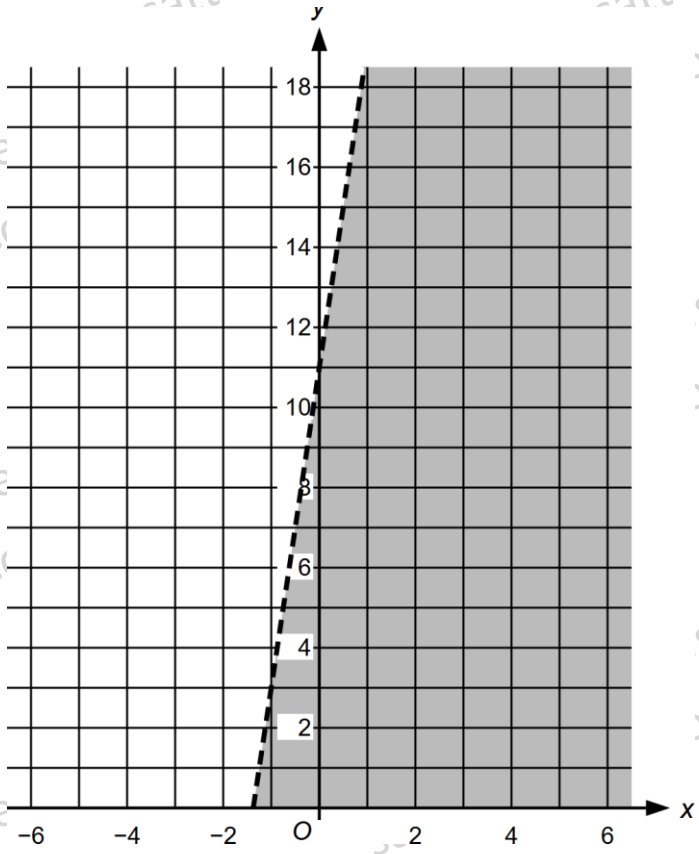
A. $f(0) = 0$

B. $f(25) = 0$

C. $f(25) = 25$

D. $f(0) = 25$

9



The shaded region shown represents the solutions to which inequality?

A. $2y > 16x + 22$

B. $2y > -16x + 22$

C. $2y < 16x + 22$

D. $2y < -16x + 22$

10

For the function f, the table shows four values of x and their corresponding values of $f(x)$.

x	$f(x)$
1	2,000
2	400
3	80
4	16

Which of the following could describe this function?

A. Decreasing exponential

B. Increasing exponential

C. Decreasing linear

D. Increasing linear

11

A company that produces only one type of item wants to estimate the percent of the items produced in a typical week that are defective. A random sample of 360 of the items produced in a certain week were tested. Based on the sample, it is estimated that 8.5% of all items produced by the company in this week are defective, with an associated margin of error of 2.88%. Based on the estimate and associated margin of error, which of the following is the most appropriate conclusion about all items produced by the company during this week?

A. 2.88% of the items are defective.

B. It is plausible that between 5.62% and 11.38% of the items are defective.

C. 8.5% of the items are defective.

D. It is plausible that more than 11.38% of the items are defective.

12

If $f(x) = x + 4$ and $g(x) = 4x$, what is the value of $5f(2) - g(2)$?

A. -2

B. 6

C. 20

D. 22

13

$$\frac{1}{4}x - 24 = 6y$$

$$\frac{3}{4}x - 13 = -6y$$

The solution to the given system of equations is (x, y). What is the value of x?

14

There is a linear relationship between the amount of salt x, in grams, and the amount of water y, in liters, in a certain body of seawater. The table shows this relationship for three samples of this seawater.

Amount of salt (grams)	Amount of water (liters)
259	7
296	8
333	9

Which equation represents this relationship?

A. $y = \frac{1}{74}x$

B. $y = \frac{1}{37}x$

C. $y = 37x$

D. $y = 74x$

15

$$(2x - 4)(x - 3)(x - 7) = 0$$

What is the sum of the solutions to the given equation?

A. -14

B. -12

C. 12

D. 14

16

Circle A: $x^2 + (y - 2)^2 = 7$

Circle B: $(x - 2)^2 + y^2 = 7$

In the xy-plane, which translation of the graph of circle A would result in the graph of circle B?

A. 2 units left

B. 2 units right

C. 2 units left and 2 units up

D. 2 units right and 2 units down

17

The table shows values of x and their corresponding values of y for three points on line j in the xy-plane.

x	y
0	16
1	20
2	24

Line k also lies in the xy-plane and is defined by the equation $y = 8x$. At what point (x, y) do lines j and k intersect?

A. $(4, 32)$

B. $(4, 68)$

C. $(5, 40)$

D. $(5, 36)$

18

A right rectangular prism has a square base with an area of 484 square centimeters. The volume of this prism is $3{,}388$ cubic centimeters. What is the area, in square centimeters, of one of the four lateral faces of this prism?

A. 616

B. 605

C. 154

D. 7

19

The wood bison is the largest land animal in North America. An exponential model estimates that the population of wood bison in a certain area doubled from the end of 1994 to the end of 1998. The model also estimates that the population of wood bison in this area at the end of 1995 was approximately 175. Which equation best represents this model, where P is the estimated population of wood bison in this area t years after the end of 1994 and $0 \leq t \leq 4$?

A. $P = 147(2)^{\frac{t}{4}}$

B. $P = 147(2)^{4t}$

C. $P = 175(2)^{\frac{t}{4}}$

D. $P = 175(2)^{4t}$

20

$$x^2 - 14x = p$$

In the given equation, p is an integer constant. A solution to the equation is $7 + \sqrt{86}$. What is the value of p?

21

$$(x + 2)^2 + 4(x + 2) + 4 = 0$$

How many distinct real solutions does the given equation have?

A. Exactly one

B. Exactly two

C. Infinitely many

D. Zero

22

474 is $1{,}450\%$ of the sum of the positive numbers b and c, and b is 58% of c. What is the value of b?

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Section 2, Module 2: Math

22 QUESTIONS • 35 MINUTES

DIRECTIONS

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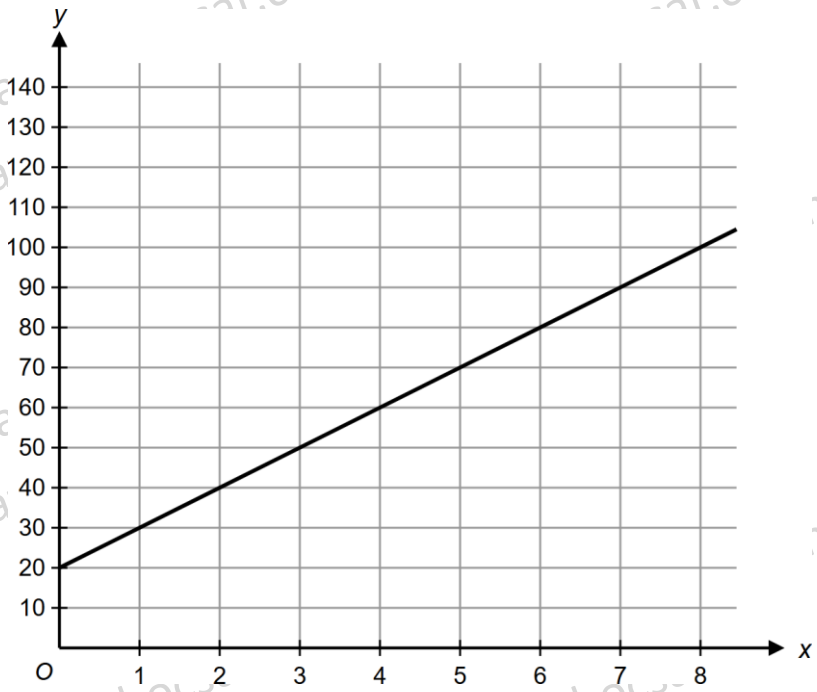
REFERENCE

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$V = \ell wh$	Rectangular prism
$V = \pi r^2 h$	Cylinder
$V = \frac{4}{3}\pi r^3$	Sphere
$V = \frac{1}{3}\pi r^2 h$	Cone
$V = \frac{1}{3}\ell wh$	Pyramid

- The number of degrees of arc in a circle is 360.
- The number of radians of arc in a circle is 2π.
- The sum of the measures in degrees of the angles of a triangle is 180.

Section 2, Module 2: Math

1



A biologist is studying the growth of a sunflower plant. The graph models the height y, in centimeters, of the sunflower plant after x weeks of observation.

According to the model, what is the estimated height, in centimeters, of the sunflower plant after 6 weeks of observation?

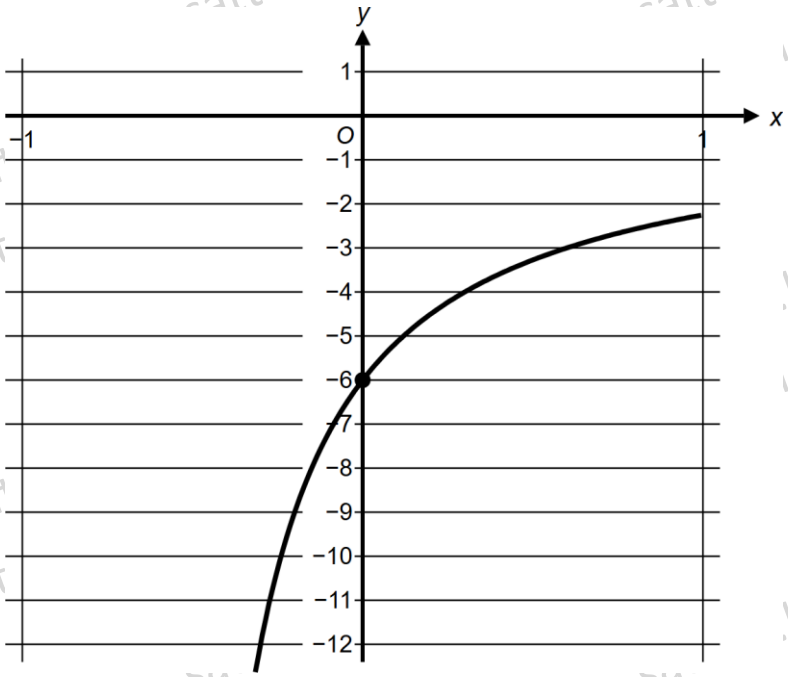
A. 6

B. 10

C. 20

D. 80

2



The graph of a rational function is shown for some values of x. What is the y-coordinate of the y-intercept of the graph?

3

A lawn care company mixes oil with gasoline to power its lawn tools. A tiller requires 5.3 ounces of oil per gallon of gasoline. A lawnmower requires 4.0 ounces of oil per gallon of gasoline. The company uses a total of 18 ounces of oil in its mixes for the tiller and lawnmower. Which of the following equations represents this situation, where x represents the amount of gasoline, in gallons, in the mix for the tiller and y represents the amount of gasoline, in gallons, in the mix for the lawnmower?

A. $x + y = 18$

B. $\frac{5.3}{x} + \frac{4.0}{y} = 18$

C. $5.3x + 4.0y = 18$

D. $9.3(x + y) = 18$

4

Dominique has spent 118 dollars on office supplies for her business this month. She does not want her total monthly expenses on office supplies to exceed her budget of 274 dollars. What is the maximum amount of additional money Dominique can spend on office supplies this month and not exceed her budget?

A. 118 dollars

B. 156 dollars

C. 274 dollars

D. 392 dollars

5

A particle is traveling at a constant speed along a straight path. If the particle travels 12 centimeters in 6 seconds, what is the particle's speed, in centimeters per second?

A. 2

B. 6

C. 12

D. 72

6

$$6x + 1 = 55$$

Which equation has the same solution as the given equation?

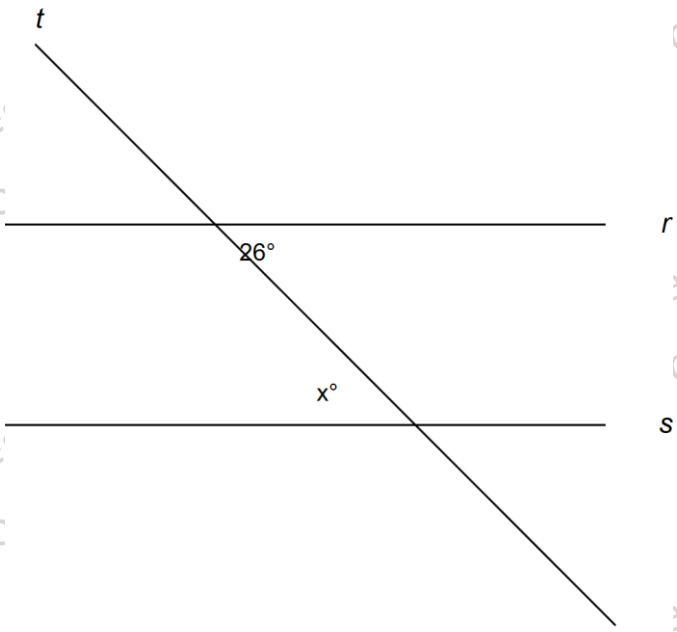
A. $6x = -54$

B. $6x = 1$

C. $6x = 7$

D. $6x = 54$

7



Note: Figure not drawn to scale.

In the figure, line t intersects lines r and s. Which additional piece of information is sufficient to prove that lines r and s are parallel?

A. $x < 26$

B. $x = 26$

C. $x > 26$

D. $x - 26 = 360$

8

Which expression is equivalent to $x^2 + 4x^2 + 5x + 7x$?

A. $3x^2 + 12x$

B. $4x^2 + 35x$

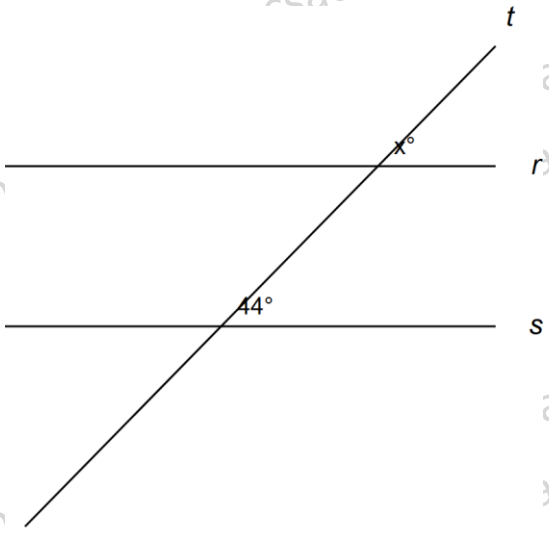
C. $5x^2 + 12x$

D. $9x^2 + 8x$

9

What is the area, in square centimeters, of a rectangle with a length of 28 centimeters (cm) and a width of 19 cm?

10



Note: Figure not drawn to scale.

In the figure shown, line r is parallel to line s. What is the value of x?

11

In a computer application, the area of a figure on the screen increases over time. This area, in pixels, is given by the function $A(t) = 15(2)^t$, where t is the number of seconds after the area of the figure begins increasing. Which statement is the best interpretation of $A(7) = 1{,}920$ in this context?

A. $1{,}920$ seconds after the area of the figure begins increasing, its area is 7 pixels.

B. 7 seconds after the area of the figure begins increasing, its area is $1{,}920$ pixels.

C. 0 seconds after the area of the figure begins increasing, its area is 7 pixels.

D. 0 seconds after the area of the figure begins increasing, its area is $1{,}920$ pixels.

12

Triangle ABC is similar to triangle DEF, where angle A corresponds to angle D, and angles C and F are right angles. If $\cos B = \frac{1}{58}$, what is the value of $\cos E$?

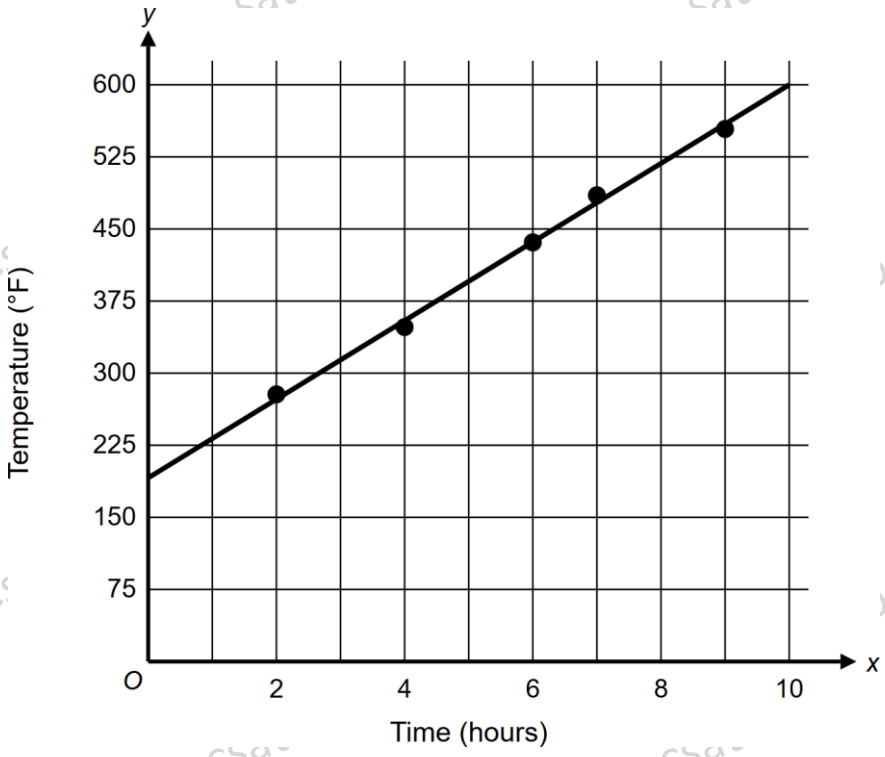
A. $\frac{1}{58}$

B. $\frac{1}{59}$

C. $\frac{57}{58}$

D. $\frac{58}{59}$

13



For the first 10 hours of an experiment, the scatterplot shows the temperature y, in degrees Fahrenheit ($^\circ$F), of an object at various times x, in hours, since the start of the experiment. A line of best fit is also shown.

Which of the following is the best interpretation of the slope of the line of best fit?

A. The predicted temperature decreases at a constant rate of approximately 190°F per hour over the 10-hour period.

B. The predicted temperature decreases at a constant rate of approximately 40°F per hour over the 10-hour period.

C. The predicted temperature increases at a constant rate of approximately 190°F per hour over the 10-hour period.

D. The predicted temperature increases at a constant rate of approximately 40°F per hour over the 10-hour period.

14

The function f is defined by the equation $f(x) = 3(x^3 - 1)$. What is the value of $f(2)$?

A. 7

B. 8

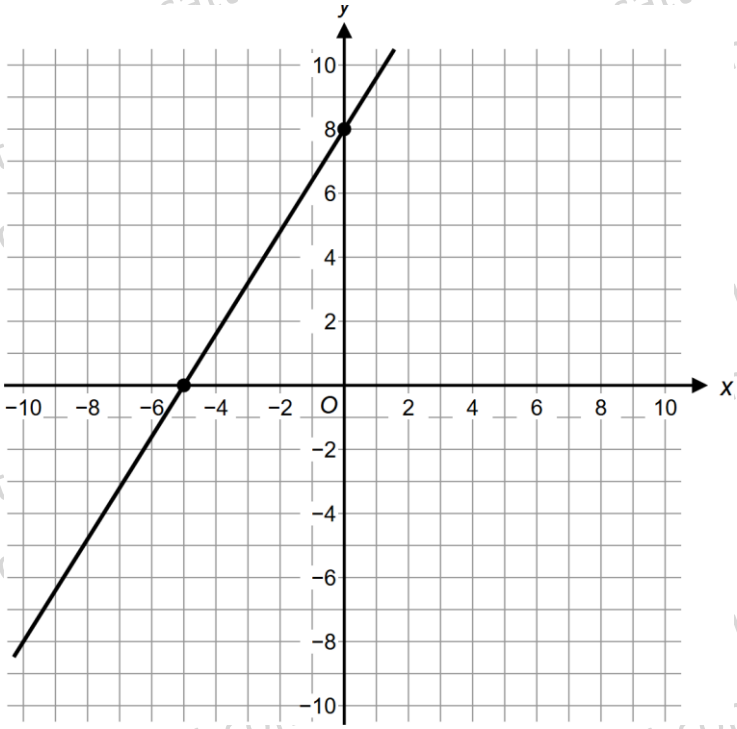
C. 21

D. 24

15

Line k is defined by $y = \frac{1}{2}x + 8$. Line j is parallel to line k in the xy-plane. What is the slope of j?

16



The graph of the linear function f is shown, where $y = f(x)$. Which equation defines f?

A. $f(x) = 1.60x + 8$

B. $f(x) = 1.60x - 8$

C. $f(x) = 0.63x + 8$

D. $f(x) = 0.63x - 8$

17

$$27x^2 = 27(9)$$

What is the negative solution to the given equation?

18

What is the y-intercept of the graph of $y = \left(\frac{8}{13}\right)^{x+1}$ in the xy-plane?

A. $(8, 13)$

B. $(0, 13)$

C. $(0, 8)$

D. $\left(0, \frac{8}{13}\right)$

19

Which expression is equivalent to $(x)^{\frac{1}{16}}$, where $x > 0$?

A. $\frac{1}{16} \cdot x$

B. $\sqrt[16]{x}$

C. $16 \cdot x$

D. $(x)^{16}$

20

The list gives the number of individuals in each of 6 groups of ring-tailed lemurs.

$$16,\ 4,\ 19,\ 16,\ 17,\ 6$$

What is the range of the numbers of individuals for the 6 groups of ring-tailed lemurs?

21

The price of an object increased from 7 dollars to 70 dollars. What was the percent increase in the price of the object?

A. 10%

B. 63%

C. 90%

D. 900%

22

Which system of linear equations has infinitely many solutions?

A. $4x + 6y = 12$

$$4x + 24y = 48$$

B. $x + 6y = 12$

$$x + 24y = 48$$

C. $x + 6y = 12$

$$4x + 24y = 48$$

D. $4x + 6y = 12$

$$x + 24y = 48$$

STOP

If you finish before time is called, you may check your work on this module only. Do not turn to any other module in the test.