

Digital SAT Practice Test 1

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How to take this test

1. Reading and Writing, Module 1: 27 questions, 32 minutes.
2. Check Module 1 with the answer key at the back. If you got **15 or more** right, take Module 2 (Harder). Otherwise take Module 2 (Easier). 32 minutes.
3. Take a 10-minute break.
4. Math, Module 1: 22 questions, 35 minutes. Use Desmos or any graphing calculator.
5. Check Math Module 1. If you got **12 or more** right, take Math Module 2 (Harder). Otherwise take Module 2 (Easier). 35 minutes.
6. Go to satowl.com/score, choose Practice Test 1, and enter your answers.

Want the computer version? The real SAT is taken in the Bluebook app, so practice on a screen too. SAT Owl's online test at satowl.com/test is timed and adapts automatically, like test day.

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Answer sheet

Circle or write your answers here, then enter them at satowl.com/score. Fill in only the Module 2 you took in each section.

Reading and Writing, Module 1

1 A B C D	2 A B C D	3 A B C D	4 A B C D
5 A B C D	6 A B C D	7 A B C D	8 A B C D
9 A B C D	10 A B C D	11 A B C D	12 A B C D
13 A B C D	14 A B C D	15 A B C D	16 A B C D
17 A B C D	18 A B C D	19 A B C D	20 A B C D
21 A B C D	22 A B C D	23 A B C D	24 A B C D
25 A B C D	26 A B C D	27 A B C D	

Reading and Writing, Module 2 (Easier)

1 A B C D	2 A B C D	3 A B C D	4 A B C D
5 A B C D	6 A B C D	7 A B C D	8 A B C D
9 A B C D	10 A B C D	11 A B C D	12 A B C D
13 A B C D	14 A B C D	15 A B C D	16 A B C D
17 A B C D	18 A B C D	19 A B C D	20 A B C D
21 A B C D	22 A B C D	23 A B C D	24 A B C D
25 A B C D	26 A B C D	27 A B C D	

Reading and Writing, Module 2 (Harder)

1 A B C D	2 A B C D	3 A B C D	4 A B C D
5 A B C D	6 A B C D	7 A B C D	8 A B C D
9 A B C D	10 A B C D	11 A B C D	12 A B C D
13 A B C D	14 A B C D	15 A B C D	16 A B C D
17 A B C D	18 A B C D	19 A B C D	20 A B C D
21 A B C D	22 A B C D	23 A B C D	24 A B C D
25 A B C D	26 A B C D	27 A B C D	

Math, Module 1

1 A B C D	2 A B C D	3 A B C D	4 A B C D
5 A B C D	6 A B C D	7 A B C D	8 _____
9 _____	10 A B C D	11 A B C D	12 A B C D
13 A B C D	14 A B C D	15 _____	16 _____
17 A B C D	18 A B C D	19 A B C D	20 _____
21 _____	22 _____		

Math, Module 2 (Easier)

1	A B C D	2	A B C D	3	A B C D	4	A B C D
5	A B C D	6	A B C D	7	A B C D	8	A B C D
9	A B C D	10	_____	11	_____	12	_____
13	_____	14	_____	15	_____	16	A B C D
17	A B C D	18	A B C D	19	A B C D	20	A B C D
21	A B C D	22	A B C D				

Math, Module 2 (Harder)

1	A B C D	2	A B C D	3	A B C D	4	A B C D
5	A B C D	6	A B C D	7	A B C D	8	A B C D
9	A B C D	10	A B C D	11	A B C D	12	A B C D
13	A B C D	14	A B C D	15	A B C D	16	A B C D
17	A B C D	18	_____	19	_____	20	_____
21	_____	22	_____				

Reading and Writing, Module 1

27 questions
32 minutes

Each question has one or more passages. Read each passage and question carefully, then choose the best answer. Every question has a single best answer.

- 1** The Great Wall of China was not built all at once. Different dynasties constructed separate walls over a period of roughly two thousand years, and during the Ming dynasty many older sections were _____ and connected to form much of the structure that visitors see today.

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

- A) forgotten
- B) painted
- C) flooded
- D) rebuilt

- 2** Text 1: Some museum directors argue that visitors should be allowed to photograph artworks freely. Photography, they say, lets visitors share art with friends and builds public interest in museums.

Text 2: Curator Maya Okafor worries that constant photography changes how visitors experience art. In her observations, many visitors spent more time looking at paintings through their phone screens than looking at the paintings directly, often moving on as soon as they had taken a picture.

Based on the texts, how would Okafor most likely respond to the museum directors' view in Text 1?

- A) She would suggest that photography may reduce visitors' direct engagement with the artworks.
- B) She would agree that photography has no drawbacks for museum visitors.
- C) She would argue that museums should charge visitors a fee for taking photographs.
- D) She would claim that visitors rarely share their photographs with friends.

- 3** The city council had scheduled three full evenings to review the new zoning proposal, expecting it to spark heated debate. Instead, the members _____ it with little discussion, approving every section in under an hour.

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

- A) scrutinized
- B) endorsed
- C) postponed
- D) rejected

- 4** The following text is from a 1904 short story by Arthur Penhallow. Mr. Dorrance, a shopkeeper, is closing his store for the night.

Mr. Dorrance counted the day's coins twice, as was his habit, and set them in the iron box beneath the counter. The street outside had grown quiet. He was a man of few pleasures, but he allowed himself one: before he turned down the lamp, he would stand at the window and entertain the notion that tomorrow might bring a customer stranger and more interesting than any he had yet known.

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

- A)** amuse
- B)** consider
- C)** host
- D)** distract

-
- 5** Text 1: Many economists argue that rent control, which limits how much landlords can raise rents, reduces the supply of housing. When landlords cannot charge market rates, they say, some convert apartments into condominiums or stop maintaining their buildings, leaving fewer rental units available.

Text 2: Supporters of rent control acknowledge that it can discourage some landlords, but they argue that the policy's main goal is different: keeping long-term residents from being forced out of their neighborhoods by sudden rent increases. A study in San Francisco found that tenants in rent-controlled units were much more likely to remain at the same address years later.

Based on the texts, how would the supporters in Text 2 most likely respond to the economists' argument in Text 1?

- A)** By denying that rent control has any effect on landlords' decisions
 - B)** By arguing that rent control increases the number of rental units
 - C)** By conceding that rent control may reduce housing supply while arguing that it achieves a different, important goal
 - D)** By claiming that tenants in rent-controlled units move more often than other tenants do
-

- 6** Text 1: Many historians describe the invention of the mechanical clock in medieval Europe as a turning point that immediately transformed daily life, imposing strict schedules on workers and townspeople.

Text 2: Early mechanical clocks were expensive and inaccurate, and many lacked minute hands; some lost or gained fifteen minutes a day. For centuries after their invention, most people continued to organize their days by sunrise, sunset, and church bells rung by hand. The clock's power to regulate daily life grew slowly as clocks became cheaper and more precise.

Based on the texts, how would the author of Text 2 most likely respond to the historians' description in Text 1?

- A) By agreeing that the clock quickly imposed strict schedules on workers
 - B) By claiming that mechanical clocks were first invented outside Europe
 - C) By arguing that the clock's effect on daily life was gradual rather than immediate
 - D) By asserting that church bells kept time more accurately than mechanical clocks
-

- 7** Unlike her predecessors, who filled their histories with sweeping claims about national character, historian Margaret Ellison was notably _____ in her conclusions, rarely asserting more than her archival evidence could directly support.

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

- A) grandiose
 - B) arbitrary
 - C) strident
 - D) circumspect
-

- 8** Literary historian Naomi Fairbanks observes that the novelist's early reviewers were not hostile so much as _____. They praised the book's style in one sentence and questioned its subject matter in the next, never settling on a firm judgment of whether the novel succeeded.

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

- A) effusive
 - B) vindictive
 - C) ambivalent
 - D) indifferent
-

- 9** Many people assume that honeybees find flowers mainly by sight. But entomologist Clara Wendt has found that scent plays a larger role than color for some bee colonies. In her trials, bees trained to visit a blue dish scented with lavender kept visiting lavender-scented dishes even after the dishes were painted yellow. When the scent was removed from blue dishes, however, visits dropped sharply. Wendt suggests that for these colonies, odor is the more reliable guide to food.

Which choice best states the main idea of the text?

- A)** Wendt's trials suggest that scent can matter more than color in guiding some bees to food.
 - B)** Honeybees cannot tell the difference between blue and yellow objects.
 - C)** Lavender is the scent that honeybees prefer above all others.
 - D)** Bees that are trained to visit dishes quickly forget their training.
-

- 10** In a 1902 essay, naturalist Edwin Sorrell argues that close observation of ordinary places can be as rewarding as travel to distant lands. Sorrell makes this point when he writes, -----

Which quotation from Sorrell's essay most effectively illustrates his argument?

- A)** "I have crossed three oceans and climbed mountains on two continents, and I count those journeys among the best years of my life."
 - B)** "Many naturalists of my generation were trained in the great museums of Europe."
 - C)** "The traveler who wishes to see rare birds must be prepared for long and uncomfortable voyages."
 - D)** "In a single square yard of my own garden I have found more wonders than I could catalog in a lifetime of looking."
-

- 11** The following text is from a 1923 novel by Grace Holloway. Tom, a young farmhand, has just received his first wages.

Tom held the three silver dollars in his palm and turned them over, one by one, as though each side might show him something new. He had worked for them through the long August heat, hauling hay until his shoulders burned. Now, standing at the edge of the field, he did not think of what they could buy. He thought only that they were his, earned by his own two hands, and that no one could say otherwise.

Which choice best states the main idea of the text?

- A)** Tom is disappointed that he was paid less than he expected.
 - B)** Tom plans to spend his wages on new farm equipment.
 - C)** Tom is proud that he earned the money through his own hard work.
 - D)** Tom worries that someone will try to take his money from him.
-

- 12** The following text is from a 1914 novel by Ida Merriwether. Arthur, a boy, is learning to play the violin.

For three months Arthur had practiced every evening, and for three months the violin had answered him with squeaks and groans that sent the cat from the room. His sister said he should give it up. His father said nothing, which was worse. But one evening in late spring, as he drew the bow slowly across the strings, a single clear note rose and held, and Arthur stood very still, afraid that if he moved he would lose it.

Which choice best states the main idea of the text?

- A)** Arthur decides to stop practicing because his family disapproves.
 - B)** Arthur's father is proud of how quickly his son has improved.
 - C)** Arthur finds that he practices better in spring than in winter.
 - D)** After months of frustrating practice, Arthur produces a moment of success that he is anxious to hold on to.
-

- 13** Scientists once believed that stone toolmaking began with members of the genus *Homo*, the group that includes modern humans. Discoveries at Lomekwi, a site in northwestern Kenya, have challenged that view. There, archaeologists found stone flakes, and the cores from which they were struck, dating to about 3.3 million years ago. That is roughly 700,000 years earlier than the oldest stone tools previously known, and older than the earliest known fossils of *Homo*.

Based on the text, why are the tools found at Lomekwi significant?

- A)** They are the first tools of any kind ever found in Kenya.
 - B)** They suggest that stone toolmaking may have begun before the genus *Homo* appeared.
 - C)** They prove that modern humans lived 3.3 million years ago.
 - D)** They show that the earliest tools were made of wood rather than stone.
-

- 14** Researchers compared four varieties of wheat grown under normal rainfall and under drought conditions, measuring yield in tonnes per hectare.

Variety	Normal rainfall	Drought
K-12	6.1	3.0
Larkspur	5.4	4.2
Mesa	4.8	4.1
Pell	6.4	2.7

The researchers recommend Larkspur for regions with frequent droughts, arguing that it offers the best combination of strong yields in normal years and resilience during droughts.

Which choice most effectively uses data from the table to support the researchers' recommendation?

- A)** Mesa's yield fell by only 0.7 tonnes per hectare under drought, the smallest decline of any variety.
- B)** Pell produced the highest yield of any variety under normal rainfall, at 6.4 tonnes per hectare.
- C)** K-12 and Pell both produced more than 6 tonnes per hectare under normal rainfall.
- D)** Larkspur produced the highest drought yield of any variety, and under normal rainfall it outyielded Mesa, the variety with the next-highest drought yield.

15

Lake	Phosphorus (micrograms per liter)	Algae, as chlorophyll (micrograms per liter)	Average water temperature (C)
Arlo	12	4	18
Birch	35	21	19
Crane	38	9	11
Dell	60	33	20

A researcher studied four lakes and concluded that higher phosphorus levels tend to be associated with more algae, but that cold water may limit algae growth even when phosphorus is plentiful.

Which choice most effectively uses data from the table to support the second part of the researcher's conclusion?

- A)** Dell had the highest phosphorus level and the most algae of the four lakes.
- B)** Crane had a phosphorus level similar to Birch's but far less algae, and its water was much colder than Birch's.
- C)** Arlo had the lowest phosphorus level and the least algae of the four lakes.
- D)** Birch and Dell had average water temperatures within one degree of each other.

- 16** Hummingbirds have the highest metabolic rate of any warm-blooded animal. To conserve energy on cold nights, _____ can enter a state called torpor, dramatically lowering their body temperature and heart rate.

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

- A) they
 - B) it
 - C) one
 - D) he or she
-

- 17** When the Pantheon in Rome was completed around 125 _____ its concrete dome was the largest in the world. Nearly 1,900 years later, it remains the largest unreinforced concrete dome ever built.

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

- A) CE;
 - B) CE
 - C) CE,
 - D) CE:
-

- 18** Emperor penguins breed during the harsh Antarctic _____ the males keep the eggs warm on their feet for about two months while the females feed at sea.

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

- A) winter,
 - B) winter, and
 - C) winter
 - D) winter and,
-

- 19** Jazz pianist and composer Mary Lou Williams, _____ arrangements were performed by the bands of Duke Ellington and Benny Goodman, also mentored younger musicians such as Thelonious Monk and Dizzy Gillespie.

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

- A) who's
 - B) whose
 - C) who
 - D) whom
-

- 20** In 2021, a team of marine ecologists published a study on how noise from shipping affects the behavior of dolphins. Several of the _____ findings were later confirmed by research groups working in other oceans.

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

- A) ecologist's
- B) ecologists
- C) ecologists's
- D) ecologists'

-
- 21** Toni Morrison published eleven novels over her long career. Her novel _____ was awarded the Pulitzer Prize for Fiction in 1988 and is frequently ranked among the greatest American novels of the twentieth century.

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

- A) , Beloved,
- B) Beloved
- C) Beloved,
- D) , Beloved

-
- 22** Although lightning is most often associated with thunderstorms, it can also occur during volcanic eruptions, intense snowstorms, and very large _____ in each case, collisions among particles separate electric charges until the charge difference becomes great enough to produce a discharge.

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

- A) wildfires,
- B) wildfires
- C) wildfires;
- D) wildfires, in which

23

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

- Giant sequoias grow naturally only on the western slopes of California's Sierra Nevada.
- The General Sherman Tree is a giant sequoia in Sequoia National Park.
- By volume, it is the largest known single-stem tree on Earth.
- It is estimated to be about 2,200 years old.

The student wants to emphasize the size of the General Sherman Tree. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) The General Sherman Tree is estimated to be about 2,200 years old.
 - B) By volume, the General Sherman Tree is the largest known single-stem tree on Earth.
 - C) Giant sequoias grow naturally only in California's Sierra Nevada.
 - D) The General Sherman Tree is located in Sequoia National Park.
-

24

Unlike most bony fish, sharks do not have a swim bladder, the gas-filled organ that helps many fish stay afloat. Sharks instead rely in part on large livers filled with oil, which is less dense than seawater. _____ a shark's liver helps keep the animal from sinking.

Which choice completes the text with the most logical transition?

- A) Thus,
 - B) However,
 - C) Meanwhile,
 - D) Likewise,
-

25

The poet Emily Dickinson published very few of her poems during her lifetime. _____ only about ten of her nearly 1,800 poems appeared in print before her death in 1886, and most of those were published without her name.

Which choice completes the text with the most logical transition?

- A) Nevertheless,
 - B) By contrast,
 - C) Consequently,
 - D) In fact,
-

26

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

- Maria Sibylla Merian (1647–1717) was a German-born naturalist and artist.
- In 1699 she traveled to Suriname to study insects.
- She documented the life cycles of butterflies and moths, painting caterpillars on the plants they ate.
- Her book *Metamorphosis insectorum Surinamensium* was published in 1705.
- Many Europeans at the time believed that insects arose spontaneously from mud.

The student wants to introduce Merian's book to an audience unfamiliar with Merian. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) *Metamorphosis insectorum Surinamensium* was published in 1705, six years after its author traveled to Suriname.
- B) Many Europeans believed that insects arose from mud, but Merian's work suggested otherwise.
- C) Merian traveled to Suriname in 1699 to study insects.
- D) German-born naturalist and artist Maria Sibylla Merian published *Metamorphosis insectorum Surinamensium*, a book documenting insect life cycles in Suriname, in 1705.

27

In the Northern Hemisphere, the longest day of the year occurs in late June, when the North Pole is tilted most directly toward the Sun. _____ the Southern Hemisphere experiences its shortest day at that same time, since the South Pole is then tilted away from the Sun.

Which choice completes the text with the most logical transition?

- A) Similarly,
- B) Conversely,
- C) For example,
- D) Subsequently,

STOP. If you finish before time is up, check your work on this module only.

Reading and Writing, Module 2 (Easier)

27 questions
32 minutes

Each question has one or more passages. Read each passage and question carefully, then choose the best answer. Every question has a single best answer.

- 1** The axolotl, a salamander native to lakes near Mexico City, can regrow lost body parts, including legs, parts of its heart, and even portions of its brain. Scientists study axolotls in hopes of learning how this regeneration works. Someday, their research might help doctors find new ways to heal injuries in humans.

Which choice best states the main purpose of the text?

- A)** To describe an animal's unusual ability and explain why scientists study it
- B)** To argue that axolotls should be kept as pets
- C)** To compare axolotls with other species of salamanders
- D)** To explain how doctors currently treat injuries in humans

- 2** The following text is from an 1898 short story by Henry Lisle.

It had rained for nine days. The creek behind the Morgan farm, usually so thin a child could step across it, had risen over its banks and spread into the lower pasture. The cows stood bunched on the hill, and the chickens would not leave the barn. On the tenth morning the rain stopped, and Sarah Morgan stepped onto the porch to find the whole valley shining under a clean, astonishing sun.

Which choice best describes the overall structure of the text?

- A)** It compares two different farms in the same valley.
- B)** It explains the causes of a flood and proposes ways to prevent future floods.
- C)** It describes a long period of bad weather and then a sudden change.
- D)** It presents a character's memories of her childhood on a farm.

3 Text 1: Shortly after the poet John Keats died in 1821, his friend Percy Bysshe Shelley wrote that harsh reviews of Keats's poetry had broken his spirit and hastened his death. This story was repeated for decades.

Text 2: Keats died of tuberculosis, the same disease that had killed his mother and his brother. His letters show that although the reviews stung him, he responded with determination, writing several of his most admired poems after they appeared.

Based on the texts, how would the author of Text 2 most likely respond to the story described in Text 1?

- A) By arguing that the story misrepresents both the cause of Keats's death and his reaction to the reviews
 - B) By agreeing that the reviews caused Keats to stop writing poetry
 - C) By claiming that Shelley himself wrote the harsh reviews
 - D) By suggesting that Keats's brother wrote some of his letters
-

4 Every autumn, monarch butterflies from eastern North America travel as far as 4,000 kilometers to spend the winter in the mountain forests of central Mexico. None of the butterflies that make this trip has made it before. The monarchs that left Mexico the previous spring died along the way north, and their descendants, several generations later, are the ones flying south. Scientists are still working to understand how these insects find a place they have never seen.

Which choice best states the main purpose of the text?

- A) To argue that monarch butterflies should be protected by law
 - B) To describe a puzzling feature of monarch butterfly migration
 - C) To compare monarch butterflies with other migrating insects
 - D) To explain why monarch butterflies live for only a few weeks
-

5 Unlike most frogs, which lay their eggs in water, the coqui frog of Puerto Rico lays its eggs on land, often on leaves. The male guards the eggs and keeps them moist until they hatch, a degree of parental care that is _____ among amphibians, most of which leave their eggs soon after laying them.

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

- A) typical
 - B) required
 - C) uncommon
 - D) invisible
-

- 6** Text 1: Some linguists argue that emoji are weakening written language. Because a single image can stand in for a phrase or a feeling, they say, people who rely on emoji lose the habit of expressing themselves precisely in words.

Text 2: After studying thousands of text messages, linguist Simone Achterberg found that emoji most often accompany words rather than replace them. They usually do the work that tone of voice and facial expression do in speech, signaling whether a message is a joke, a complaint, or a sincere compliment.

Based on the texts, how would Achterberg most likely respond to the linguists' argument in Text 1?

- A) By agreeing that emoji have replaced words in most text messages
 - B) By claiming that facial expressions are unimportant in spoken conversation
 - C) By suggesting that people should use emoji only in formal writing
 - D) By arguing that emoji usually add tone to written words rather than substituting for them
-

- 7** Text 1: Some literary scholars argue that a novel's meaning is fixed by its author's intentions. To understand a book properly, they say, readers must learn as much as possible about what the author meant to express.

Text 2: Novelist Teresa Valdez has said she is often surprised by what readers find in her books. Some of the most perceptive interpretations she has heard, she says, point to patterns she never consciously planned but immediately recognizes as true to the work.

Based on the texts, how would Valdez most likely respond to the scholars' view in Text 1?

- A) She would suggest that valid meanings in a novel can go beyond what its author consciously intended.
 - B) She would agree that readers should study an author's life before reading the author's novels.
 - C) She would argue that an author's intentions can never be determined.
 - D) She would claim that readers' interpretations of her novels are usually mistaken.
-

- 8** Many early accounts of the Silk Road focus on luxury goods such as silk and spices. Recent scholarship, however, suggests that the routes were equally important for the _____ of ideas. Religious teachings, scientific knowledge, and artistic styles traveled along the same paths as merchants' caravans.

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

- A) suppression
 - B) invention
 - C) ownership
 - D) transmission
-

- 9** Biologist Kenji Watanabe hypothesizes that a species of desert lizard changes its skin color to regulate body temperature. According to his hypothesis, the lizards become darker in the cool morning to absorb more heat and lighter in the hot afternoon to reflect it.

Which finding, if true, would most directly support Watanabe's hypothesis?

- A) The lizards eat mainly insects.
 - B) The lizards are darkest in the early morning and lightest during the hottest part of the afternoon.
 - C) Lizards of this species are all the same color when they hatch.
 - D) The lizards are lighter in color than lizards of other species.
-

- 10** When Brazilian architect Lina Bo Bardi designed the SESC Pompeia cultural center in Sao Paulo in the late 1970s, she chose not to demolish the old brick factory on the site. Instead, she kept its long sheds and turned them into spaces for reading, games, and exhibitions, adding new concrete towers beside them. Bo Bardi believed that the factory's history belonged to the neighborhood and that a building for the community should preserve traces of the community's past.

According to the text, why did Bo Bardi keep the old factory?

- A) She lacked the money needed to demolish the factory.
 - B) She believed the factory's history was part of the neighborhood's heritage and worth preserving.
 - C) She thought brick was a better building material than concrete.
 - D) The city government required her to keep the factory standing.
-

- 11** People on Earth always see the same face of the Moon. This happens because the Moon rotates once on its axis in the same amount of time it takes to orbit Earth once, about 27 days. As a result, people standing on Earth _____

Which choice most logically completes the text?

- A) see a different side of the Moon each night.
 - B) never see one side of the Moon.
 - C) can see the Moon only once every 27 days.
 - D) can watch the Moon spin rapidly as it crosses the sky.
-

12 Tardigrades are tiny animals, less than a millimeter long, that can survive extreme conditions. When their environment dries out, they curl into a dormant state called a tun. Researchers have revived tardigrades that had been kept dry for more than a decade simply by adding water. This ability suggests that tardigrades _____

Which choice most logically completes the text?

- A) need to eat every day to stay alive.
 - B) are the largest animals that can survive drought.
 - C) can survive long periods without water by becoming dormant.
 - D) die soon after they are exposed to water.
-

13 "Harvest Moon" is a 1908 poem by Eliza Thornbury. In the poem, the speaker describes the moon as a comforting presence for farmworkers walking home late at night: _____

Which quotation from "Harvest Moon" most effectively illustrates the claim?

- A) "It hangs above the stubbled field / And lights the weary workers home, / As kind as any lamp a mother sets / Within a window for her own."
 - B) "The moon is cold and far away, / And cares for nothing that it sees."
 - C) "In ancient times the farmers named / Each moon according to its month."
 - D) "The harvest ends in late September / When the barns are full of grain."
-

14 In her 1915 essay "The Unfinished Map," suffragist Cora Whitfield argues that progress toward equal rights depends on the efforts of ordinary people rather than on the achievements of a few famous leaders. Whitfield makes this point when she writes, _____

Which quotation from "The Unfinished Map" most effectively illustrates Whitfield's argument?

- A) "The great orators of our cause have spoken in every hall in the nation, and their words will be remembered long after ours."
 - B) "Our movement has faced setbacks in many states, but each defeat has taught us something."
 - C) "Those who oppose us claim to speak for tradition, yet tradition has changed many times before."
 - D) "No law was ever changed by a single voice; it was changed by ten thousand voices that history did not trouble to record."
-

- 15** The following text is from an 1899 novel by Adelaide Prowse. Mrs. Cartwright is a widow who runs a boarding house.

Mrs. Cartwright's boarders often remarked that she seemed never to sleep. She was in the kitchen before the first of them rose and still at her ledger long after the last had gone up to bed. If anyone suggested she take a day's rest, she would laugh and say that rest was for people who could afford it. Yet she kept a vase of fresh flowers on the hall table every week of the year, and no boarder ever saw her pass it without pausing.

Which choice best states the main idea of the text?

- A) Mrs. Cartwright works tirelessly, yet she makes room for a small source of beauty in her life.
 - B) Mrs. Cartwright is wealthy enough that she has no need to rest.
 - C) Mrs. Cartwright's boarders do not appreciate how hard she works.
 - D) Mrs. Cartwright neglects her ledger so that she can arrange flowers.
-

- 16** Although the Greek scholar Eratosthenes lived more than 2,200 years _____ he estimated Earth's circumference with surprising accuracy by comparing the angles of shadows in two Egyptian cities.

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

- A) ago;
 - B) ago:
 - C) ago,
 - D) ago
-

- 17** The okapi, which lives in the rainforests of central Africa, is the giraffe's only living relative. The stripes on its legs resemble those of a _____ its long, dark tongue is much like a giraffe's.

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

- A) zebra
 - B) zebra,
 - C) zebra, and,
 - D) zebra, but
-

- 18** Although Orville and Wilbur Wright are famous for making the first powered airplane flight in 1903, _____ first business was a bicycle shop in Dayton, Ohio, where they built and repaired bicycles.

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

- A) their
 - B) there
 - C) they're
 - D) his
-

- 19** The Sahara is the largest hot desert in the world. It covers about 9 million square _____ an area nearly as large as the United States.

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

- A) kilometers;
 - B) kilometers,
 - C) kilometers. And
 - D) kilometers and
-

- 20** The ancient Maya city of Tikal, in present-day Guatemala, was home to tens of thousands of people at its peak. The _____ of the city include temples that rise more than 60 meters above the surrounding rainforest.

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

- A) ruin's
 - B) ruins'
 - C) ruins
 - D) ruin
-

- 21** The planets of our solar system formed from a rotating disk of gas and dust, which is why their orbits share a common direction. Each of the eight planets _____ the Sun counterclockwise when viewed from above Earth's North Pole.

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

- A) orbit
 - B) orbits
 - C) are orbiting
 - D) have orbited
-

- 22** In her 2014 novel *Station Eleven*, _____ imagines a traveling troupe of actors and musicians who perform Shakespeare's plays in small towns years after a pandemic has collapsed modern civilization.

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

- A) author Emily St. John Mandel
 - B) author, Emily St. John Mandel,
 - C) author, Emily St. John Mandel
 - D) author Emily St. John Mandel,
-

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

- NASA's Perseverance rover landed on Mars in February 2021.
- It carried an experimental instrument called MOXIE.
- MOXIE converted carbon dioxide from the Martian atmosphere into oxygen.
- NASA hoped the technology could one day supply oxygen for astronauts to breathe and for rocket fuel.

The student wants to explain the purpose of MOXIE. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) The Perseverance rover, which carried an instrument called MOXIE, landed on Mars in February 2021.
 - B) MOXIE, an instrument on the Perseverance rover, tested a way of turning Martian carbon dioxide into oxygen that astronauts could someday breathe or use for rocket fuel.
 - C) The Martian atmosphere contains carbon dioxide.
 - D) In February 2021, NASA's Perseverance rover landed on Mars.
-

- 24** Humans are not the only animals that use tools to obtain food. _____ New Caledonian crows bend twigs into hooks, which they use to pull insect larvae out of holes in trees.

Which choice completes the text with the most logical transition?

- A) Nevertheless,
 - B) In conclusion,
 - C) However,
 - D) For example,
-

- 25** Bamboo is a popular building material in many parts of Asia because it is remarkably strong for its weight. _____ bamboo grows quickly, with some species growing nearly a meter in a single day, so it can be harvested repeatedly without depleting forests.

Which choice completes the text with the most logical transition?

- A) However,
- B) For instance,
- C) Moreover,
- D) Nonetheless,

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

- Gwendolyn Brooks was born in Kansas in 1917 and raised in Chicago.
- Brooks won the Pulitzer Prize for Poetry in 1950 for her collection *Annie Allen*.
- She was the first Black American to win a Pulitzer Prize.
- Rita Dove was born in Ohio in 1952.
- Dove won the Pulitzer Prize for Poetry in 1987 for her collection *Thomas and Beulah*.

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

- A) Both Gwendolyn Brooks and Rita Dove won the Pulitzer Prize for Poetry, Brooks in 1950 for *Annie Allen* and Dove in 1987 for *Thomas and Beulah*.
- B) Brooks won the Pulitzer Prize for Poetry in 1950, becoming the first Black American to win a Pulitzer Prize.
- C) Rita Dove, who was born in Ohio, won the Pulitzer Prize for Poetry in 1987.
- D) Brooks was born in Kansas in 1917, while Dove was born in Ohio in 1952.

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

- *Tiktaalik roseae* is an extinct animal that lived about 375 million years ago.
- Its fossils were discovered in 2004 on Ellesmere Island in the Canadian Arctic.
- *Tiktaalik* had gills and scales like a fish.
- It also had a flexible neck and sturdy fin bones resembling the limb bones of land animals.
- Its mix of features helps scientists understand how vertebrates moved from water to land.

The student wants to emphasize why *Tiktaalik* is significant to scientists. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) *Tiktaalik roseae*, which lived about 375 million years ago, was discovered on Ellesmere Island in 2004.
- B) With features of both fish and limbed animals, *Tiktaalik* helps scientists understand how vertebrates moved from water onto land.
- C) *Tiktaalik* had gills and scales, as well as a flexible neck.
- D) Discovered in the Canadian Arctic, *Tiktaalik* had sturdy fin bones that resembled limb bones.

STOP. If you finish before time is up, check your work on this module only.

Reading and Writing, Module 2 (Harder)

27 questions
32 minutes

Each question has one or more passages. Read each passage and question carefully, then choose the best answer. Every question has a single best answer.

- 1** The following text is from an 1890 novel by Rosamund Keyes.

Everyone in Hartwell agreed that Dr. Morrow was the finest physician in the county. He had set the mayor's broken arm so cleanly that no trace of the break remained; he had seen the Ellison children through scarlet fever when three other doctors had given them up. And yet, as the town would discover that winter, there was one patient whose illness Dr. Morrow had never been able to diagnose, though he had studied it every day for thirty years: himself.

Which choice best describes the overall structure of the text?

- A)** It describes a doctor's medical training and then his first patients.
- B)** It praises a doctor and then argues that he does not deserve his reputation.
- C)** It narrates an epidemic in a town and then describes its aftermath.
- D)** It establishes a character's reputation for skill and then reveals a problem that his skill has not solved.

- 2** Women played a central role in the Montgomery bus boycott of 1955-1956. The Women's Political Council, led by Jo Ann Robinson, had been planning a boycott for months before Rosa Parks's arrest. Within hours of the arrest, Robinson and her colleagues copied tens of thousands of leaflets announcing the boycott and distributed them across the city. Their preparation helped make it possible for the protest to begin just days later.

Which choice best states the main purpose of the text?

- A)** To argue that the Women's Political Council planned Rosa Parks's arrest
- B)** To highlight the role that a group of women played in organizing the Montgomery bus boycott
- C)** To explain why the boycott lasted for more than a year
- D)** To describe Jo Ann Robinson's career as a teacher

3 Text 1: Many astronomers believe that the best place to search for life beyond Earth is on planets orbiting within the habitable zones of their stars, where temperatures allow liquid water to exist on the surface. Planets outside these zones, they argue, are too hot or too cold to support life.

Text 2: Some of the most promising places to look for life in our own solar system lie far outside the Sun's habitable zone. Jupiter's moon Europa and Saturn's moon Enceladus are both thought to have oceans of liquid water beneath their icy crusts, kept warm by heat generated as the giant planets' gravity flexes the moons' interiors.

Based on the texts, how would the author of Text 2 most likely respond to the astronomers' argument in Text 1?

- A) By noting that liquid water may exist beneath the surface of bodies outside a habitable zone
 - B) By agreeing that only planets within habitable zones are worth studying
 - C) By arguing that life cannot exist without direct sunlight
 - D) By claiming that Europa and Enceladus actually lie within the Sun's habitable zone
-

4 The committee's report on the city's water system was meticulous in diagnosing problems, naming each failing pipe, pumping station, and date of breakdown. On the question of solutions, however, it was strikingly _____, offering no recommendations at all for how the failures might be repaired.

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

- A) prolix
 - B) emphatic
 - C) reticent
 - D) sanguine
-

5 Scholars have described the poet's late work as _____. In contrast to the dense, allusive poems of her youth, the poems she wrote in her seventies are spare and direct, rarely more than a dozen lines long, with scarcely an adjective among them.

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

- A) ornate
 - B) austere
 - C) erudite
 - D) whimsical
-

6 Text 1: Psychologists have often attributed procrastination to poor time management. People delay tasks, the argument goes, because they misjudge how long tasks will take or fail to plan their schedules. From this view, training in planning and scheduling should reduce procrastination.

Text 2: Psychologist Dana Whitlock contends that procrastination is mainly a problem of managing emotions, not time. People tend to put off tasks that make them feel anxious, bored, or insecure, she argues, and delaying a task brings immediate relief from those feelings. Whitlock notes that procrastinators often know exactly how long a task will take and avoid it anyway.

Based on the texts, how would Whitlock most likely respond to the approach to reducing procrastination described in Text 1?

- A)** She would agree that training in planning is the most effective way to reduce procrastination.
- B)** She would argue that procrastinators consistently underestimate how long tasks will take.
- C)** She would claim that scheduling training raises people's anxiety and so makes procrastination worse.
- D)** She would argue that the approach targets a factor that is not the main cause of procrastination, since many procrastinators already judge task length accurately.

7 Text 1: In a widely cited study, psychologists found that students who took lecture notes by hand did better on conceptual questions than students who typed notes on laptops. Because typing is faster, the researchers reasoned, laptop users tended to copy lectures word for word rather than summarizing ideas in their own words, which led to shallower understanding.

Text 2: Attempts to repeat the handwriting study have produced mixed results. In one larger replication, the advantage for handwritten notes was small and not statistically reliable. And when laptop users were told to summarize rather than transcribe, they performed as well as handwriters. What matters, it seems, is how students process information, not the tool they use to record it.

Based on the texts, how would the author of Text 2 most likely respond to the reasoning in Text 1?

- A)** By rejecting the idea that summarizing lecture content leads to better understanding
 - B)** By accepting that how students process information may matter but questioning whether handwriting itself gives a reliable advantage
 - C)** By arguing that typed notes lead to better conceptual understanding than handwritten notes do
 - D)** By claiming that the original study did not measure conceptual understanding at all
-

8 Text 1: In studying the collapse of Classic Maya cities in the ninth century CE, many archaeologists have emphasized a series of severe droughts recorded in lake sediments and cave formations. Without reliable rainfall, they argue, the farming systems that fed dense urban populations failed, and people abandoned the cities.

Text 2: Drought clearly strained Maya society, but it cannot by itself explain the pattern of abandonment. Some cities in the driest regions endured for generations after the droughts began, while others in wetter areas were deserted early. Archaeologist Elena Ruiz argues that cities with rigid, centralized leadership collapsed fastest, because their rulers' authority rested on promises of prosperity that drought made impossible to keep.

Based on the texts, how would Ruiz most likely respond to the explanation in Text 1?

- A)** She would argue that the evidence from lake sediments and cave formations is unreliable.
- B)** She would argue that drought alone cannot account for which cities were abandoned and when, and that political structures also shaped the outcome.
- C)** She would contend that cities in wetter areas were abandoned mainly because of flooding.
- D)** She would agree that drought was the only significant cause of the collapse.

9 Linguists have observed that languages spoken by small, isolated communities often have more complex grammar, such as many verb endings, than languages spoken by large populations that include many adult learners. Adults learning a new language tend to drop difficult grammatical features, and when many speakers are adult learners, these simplifications can spread. If this explanation is correct, a language that recently spread rapidly among adult traders would likely _____

Which choice most logically completes the text?

- A)** develop more verb endings than it had before.
- B)** become restricted to a small, isolated community.
- C)** show some loss of complex grammatical features.
- D)** be learned mainly by children rather than by adults.

- 10** Some sociologists have proposed that people are more likely to donate to a charity when they are told that many others have already donated. To test this idea, a researcher mailed two versions of a fundraising letter to randomly selected households. One version simply asked for a donation. The other added that "more than 5,000 of your neighbors have already given this year."

Which finding, if true, would most directly support the sociologists' proposal?

- A) The two versions of the letter produced the same rate of donations.
 - B) Most households that received a letter did not open it.
 - C) Households that received the letter mentioning other donors gave at a higher rate than households that received the simpler letter.
 - D) Households that received the simpler letter gave larger donations, on average, than other households did.
-

- 11** Astronomers can estimate the age of a star cluster by examining which of its stars have begun to swell into red giants. Massive stars burn through their fuel quickly and become red giants sooner than less massive stars do. In a cluster whose stars all formed at roughly the same time, then, the most massive stars that are still burning normally reveal the cluster's age: the less massive those remaining stars are, _____

Which choice most logically completes the text?

- A) the younger the cluster must be.
 - B) the more red giants the cluster will eventually lose.
 - C) the older the cluster must be.
 - D) the closer the cluster must be to Earth.
-

- 12** Archaeologists excavating a Bronze Age settlement found that nearly all of the pottery from the site's earliest layers was made from local clay. In later layers, about a third of the pottery was made from clay found only in a region some 200 kilometers to the south, yet its shapes and decorations were identical to those of the local ware. Because potters in the southern region made vessels in a distinctly different style, the archaeologists concluded that _____

Which choice most logically completes the text?

- A) the settlement's potters stopped using local clay entirely in the later period.
 - B) the southern region's potters eventually adopted the settlement's style for all of their vessels.
 - C) trade between the settlement and the southern region declined over time.
 - D) the clay itself, rather than finished pots made in the southern tradition, was likely what traveled from the south to the settlement.
-

- 13** The following text is from an 1896 novel by Louisa Penhurst. Mr. Crane, a wealthy merchant, is speaking with his nephew.

"You will find," said Mr. Crane, folding his hands upon his waistcoat, "that I ask very little of those I help. A word of thanks now and then. A visit on Sundays. Some small attention to my opinions on matters of business." He smiled at his nephew. "Your cousin Edward neglected these trifles, and you will have noticed that Edward no longer dines with us."

Based on the text, what can most reasonably be inferred about Mr. Crane?

- A) He truly asks nothing of his relatives in return for his help.
- B) He regrets that Edward no longer comes to dinner and hopes to win him back.
- C) He intends to leave his entire fortune to his nephew.
- D) He expects the people he helps to defer to him, and he withdraws his favor from those who do not.

-
- 14** Art historian Paulina Weiss argues that a painting long attributed to the seventeenth-century Dutch artist Pieter van Hoorn was actually painted by one of his students. Her argument rests on the observation that the brushwork in the painting's background is looser and less precise than the brushwork in van Hoorn's other known works.

Which finding, if true, would most directly weaken Weiss's argument?

- A) Van Hoorn had at least six students working in his studio.
- B) Several paintings documented as van Hoorn's own work, made late in his life when his eyesight was failing, show similarly loose brushwork in their backgrounds.
- C) The painting's subject matter is similar to that of other paintings by van Hoorn.
- D) Chemical analysis shows that the painting's pigments were available in the seventeenth century.

-
- 15** Economists studying microloans, small loans offered to people with little access to banks, initially reported that the loans dramatically raised household incomes. Later, larger studies that randomly assigned access to loans told a more modest story, finding that average incomes among borrowers rose only slightly. Economist Priya Raman notes, however, that these averages hide wide variation. A minority of borrowers who already ran businesses expanded them substantially, while most borrowers used the loans to manage irregular expenses rather than to start new ventures.

Which choice best states the main idea of the text?

- A) Raman argues that microloans have no measurable effect on borrowers' lives.
- B) Raman claims that the early studies of microloans were more reliable than the later studies.
- C) Raman contends that microloans should be offered only to people who already run businesses.
- D) Raman suggests that the modest average effect of microloans conceals large differences in how borrowers benefited.

- 16** In 1932, Amelia Earhart flew alone across the Atlantic _____ the first woman to accomplish the feat. Her flight from Newfoundland to Northern Ireland took just under fifteen hours.

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

- A) Ocean;
 - B) Ocean. Becoming
 - C) Ocean
 - D) Ocean, becoming
-

- 17** Chien-Shiung Wu, a _____ conducted a 1956 experiment showing that a basic principle of physics, known as the conservation of parity, does not always hold.

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

- A) physicist at Columbia University,
 - B) physicist at Columbia University
 - C) physicist, at Columbia University,
 - D) physicist at Columbia University;
-

- 18** Galileo's 1610 discovery of four moons orbiting _____ Io, Europa, Ganymede, and Callisto—offered strong evidence that not every object in the heavens revolved around Earth.

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

- A) Jupiter—
 - B) Jupiter,
 - C) Jupiter:
 - D) Jupiter
-

- 19** Tungsten has the highest melting point of any _____ it was long used for the filaments of incandescent light bulbs, which must withstand extremely high temperatures.

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

- A) metal, therefore,
 - B) metal therefore
 - C) metal; therefore,
 - D) metal, therefore;
-

- 20** The ancient Maya developed a sophisticated calendar system made up of several interlocking cycles, such _____ a 260-day ritual calendar and a 365-day solar calendar. The two cycles realigned only once every 52 years.

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

- A) as:
- B) as,
- C) as;
- D) as

-
- 21** Ice cores drilled from Antarctica contain tiny bubbles of air trapped as snow was compressed into ice. Studying the chemical makeup of these ancient air bubbles _____ scientists to reconstruct changes in Earth's atmosphere over the past 800,000 years.

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

- A) have allowed
- B) allow
- C) are allowing
- D) allows

-
- 22** Tree rings can serve as a record of past climates. The width of a tree's annual growth rings and the density of the wood within them _____ scientists clues about how much rain fell and how warm it was in a given year.

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

- A) give
- B) gives
- C) has given
- D) is giving

-
- 23** The ancient city of Petra, in present-day Jordan, was carved into sandstone cliffs by the Nabataeans more than 2,000 years ago. Much of the city remains unexcavated; archaeologists estimate that only a small fraction of it has been studied. _____ the discoveries made so far, including tombs, temples, and an elaborate system of channels for collecting rainwater, have revealed a great deal about Nabataean engineering.

Which choice completes the text with the most logical transition?

- A) Therefore,
- B) Similarly,
- C) Even so,
- D) For instance,

- 24** Reef-building corals depend on tiny algae called zooxanthellae, which live inside the corals' tissues and supply most of their food. When ocean temperatures rise too high, however, corals expel these algae. _____ the corals lose both their main food source and their color, a phenomenon known as coral bleaching.

Which choice completes the text with the most logical transition?

- A) In contrast,
- B) Consequently,
- C) For instance,
- D) Nonetheless,

-
- 25** The Japanese art of kintsugi repairs broken pottery with lacquer mixed with powdered gold. Rather than hiding the cracks, the technique draws attention to them, treating an object's damage as a valued part of its history. _____ a bowl repaired with kintsugi is often considered more beautiful, and sometimes more valuable, than it was before it broke.

Which choice completes the text with the most logical transition?

- A) Nevertheless,
- B) By contrast,
- C) Accordingly,
- D) Similarly,

-
- 26** While researching a topic, a student has taken the following notes:
- In 1085, William the Conqueror ordered a survey of land and property in England.
 - The results were compiled in the Domesday Book, completed in 1086.
 - The survey recorded land, livestock, and other resources in more than 13,000 places across England.
 - The book's name compared it to the Last Judgment, or "Doomsday," because its records could not be appealed.

The student wants to emphasize how extensive the survey was. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) In 1085, William the Conqueror ordered a survey of land and property in England.
- B) The Domesday Book, which records the results of a survey, was completed in 1086.
- C) The Domesday Book's name compared it to the Last Judgment because its records could not be appealed.
- D) Completed in 1086, the Domesday Book recorded land, livestock, and other resources in more than 13,000 places across England.

27

When architect Zaha Hadid began her career in the 1970s, many of her designs were considered too radical to build, and for years her work existed mostly as drawings and paintings. Her first major completed building, a fire station in Germany, was not finished until 1993. _____ Hadid became one of the most celebrated architects in the world, and in 2004 she became the first woman to win the Pritzker Architecture Prize.

Which choice completes the text with the most logical transition?

- A) Ultimately,
- B) Previously,
- C) Similarly,
- D) For instance,

STOP. If you finish before time is up, check your work on this module only.

Math, Module 1

22 questions
35 minutes

The Desmos graphing calculator and the reference sheet are allowed on every question. For multiple-choice questions, circle your answer. For student-produced response questions, write your answer in the blank. A positive answer can be up to 5 characters, a negative answer up to 6. Fractions and decimals are both fine.

-
- 1** Which point (x, y) is a solution to the inequality $y > 2x + 1$?
- A) $(2, 5)$
 - B) $(0, 1)$
 - C) $(1, 4)$
 - D) $(3, 6)$
-
- 2** The point $(k, 5)$ lies on the line $y = 2x - 3$ in the xy -plane. What is the value of k ?
- A) 1
 - B) 7
 - C) 13
 - D) 4
-
- 3** A delivery van can carry at most 2,000 pounds, including the driver. The driver weighs 180 pounds, and each box weighs 35 pounds. Which inequality represents the possible numbers of boxes, b , the van can carry with the driver?
- A) $35b + 180 \leq 2,000$
 - B) $35b + 180 \geq 2,000$
 - C) $35b \leq 2,000 + 180$
 - D) $180b + 35 \leq 2,000$
-
- 4** What are the solutions to the equation $x^2 + 5x + 6 = 0$?
- A) 2 and 3
 - B) -2 and -3
 - C) -1 and -6
 - D) 1 and 6
-

5 What are the solutions to the equation $(x - 4)(x + 9) = 0$?

- A) -4 and 9
 - B) 4 and -9
 - C) 4 and 9
 - D) -4 and -9
-

6 What is 120% of 45?

- A) 54
 - B) 9
 - C) 57
 - D) 165
-

7 In triangle PQR , the measure of angle P is 48° and the measure of angle Q is 67° . What is the measure of angle R ?

- A) 55°
 - B) 65°
 - C) 75°
 - D) 115°
-

8 What value of x satisfies the equation $\frac{12}{x} = \frac{3}{2}$?

Write your answer: _____

9 In a class of 25 students, 10 students wear glasses. If one student is selected at random, what is the probability that the student does NOT wear glasses?

Write your answer: _____

10 If $2(3x - 5) - 4x = 14$, what is the value of x ?

- A) 2
 - B) 9.5
 - C) 12
 - D) 24
-

11 What is the solution to the equation $0.4(x + 15) = 0.6x - 2$?

- A) 4
 - B) 20
 - C) 40
 - D) 85
-

12 $y = x^2 - 3$

$$y = 2x$$

Which of the following is a solution (x, y) to the system of equations above?

- A) $(1, 2)$
 - B) $(-3, -6)$
 - C) $(-1, 2)$
 - D) $(3, 6)$
-

13 The graph of a quadratic function in the xy -plane has x -intercepts at $(-1, 0)$ and $(5, 0)$ and a y -intercept at $(0, -10)$. Which equation defines the function?

- A) $y = 2(x + 1)(x - 5)$
 - B) $y = (x + 1)(x - 5)$
 - C) $y = 2(x - 1)(x + 5)$
 - D) $y = -2(x + 1)(x - 5)$
-

14 Two researchers each selected a random sample of adults from the same city to estimate the proportion who commute by bicycle. Researcher A used a sample of 200 adults, and the estimate had a margin of error of 6.9%. Researcher B used a sample of 800 adults and the same method. Which of the following is the most plausible margin of error for researcher B's estimate?

- A) 3.5%
 - B) 6.9%
 - C) 9.8%
 - D) 13.8%
-

15 A line in the xy -plane has a slope of $\frac{3}{2}$ and passes through the point $(4, 1)$. If the point $(10, k)$ also lies on the line, what is the value of k ?

Write your answer: _____

- 16** The length of a rectangle is 3 times its width, and the perimeter of the rectangle is 64 centimeters. What is the area, in square centimeters, of the rectangle?

Write your answer: _____

- 17** In the equation $(p - 2)x + 8 = 5x - 2p$, p is a constant. For what value of p does the equation have no solution?
- A) -4
B) 3
C) 5
D) 7
-

- 18** A store sells shirts for \$12 each and hats for \$8 each. A customer wants to buy at least 10 items and spend no more than \$100. What is the maximum number of shirts the customer can buy?
- A) 5
B) 6
C) 8
D) 10
-

- 19** Which of the following expressions is equivalent to $1,200(1.06)^t$?
- A) $1,200(1.005)^{12t}$
B) $1,200(1.06)^{12t}$
C) $1,200\left(\frac{1.06}{12}\right)^{12t}$
D) $1,200\left(1.06^{\frac{1}{12}}\right)^{12t}$
-

- 20** A quadratic function f has a minimum value of -6 . The graph of $y = f(x)$ in the xy -plane passes through the points $(-1, 21)$ and $(5, 21)$. What is the value of $f(4)$?

Write your answer: _____

- 21** A solid metal cube has a mass of 1,728 grams. The metal has a density of 8 grams per cubic centimeter. What is the edge length of the cube, in millimeters? (1 centimeter = 10 millimeters)

Write your answer: _____

- 22** A cylindrical tank with a radius of 3 feet and a height of 8 feet contains water to a depth of 5 feet. All of the water is poured into an empty cylindrical tank with a radius of 5 feet. What is the depth, in feet, of the water in the second tank?

Write your answer: _____

STOP. If you finish before time is up, check your work on this module only.

Math, Module 2 (Easier)

22 questions
35 minutes

The Desmos graphing calculator and the reference sheet are allowed on every question. For multiple-choice questions, circle your answer. For student-produced response questions, write your answer in the blank. A positive answer can be up to 5 characters, a negative answer up to 6. Fractions and decimals are both fine.

1 $x + y = 10$
 $x - y = 4$

What is the value of x in the solution to the system of equations above?

- A) 3
- B) 6
- C) 7
- D) 14

2 Which of the following values of x satisfies the inequality $3x + 4 > 19$?

- A) 3
- B) 4
- C) 5
- D) 6

3 Which expression is equivalent to $3(2x - 5) + 4x$?

- A) $10x - 15$
- B) $10x - 5$
- C) $6x - 11$
- D) $2x - 15$

4 For $x > 0$, which expression is equivalent to $\frac{12x^2 + 8x}{4x}$?

- A) $3x^2 + 2x$
- B) $12x + 2$
- C) $3x + 2$
- D) $3x + 8$

- 5** The value, in dollars, of a car t years after it was purchased is modeled by $V(t) = 24,000(0.85)^t$. Which statement best describes how the value of the car changes?
- A) It increases by 15% each year.
 - B) It decreases by 85% each year.
 - C) It decreases by 15% each year.
 - D) It decreases by \$0.85 each year.
-
- 6** A swimming pool is being filled with water at a constant rate of 15 gallons per minute. How many hours will it take to add 8,100 gallons of water to the pool?
- A) 5.4
 - B) 9
 - C) 54
 - D) 540
-
- 7** In a group of 250 people, 40% are younger than 30 years old. How many people in the group are NOT younger than 30?
- A) 60
 - B) 100
 - C) 150
 - D) 210
-
- 8** On a map, 1 inch represents 25 miles. Two towns are 3.4 inches apart on the map. What is the actual distance, in miles, between the towns?
- A) 7.35
 - B) 28.4
 - C) 85
 - D) 850
-
- 9** A circle has a diameter of 14 centimeters. What is the circumference, in centimeters, of the circle?
- A) 7π
 - B) 14π
 - C) 28π
 - D) 49π
-
- 10** What is the greatest integer value of x that satisfies the inequality $5x - 2 < 28$?
- Write your answer: _____
-

- 11** If $3(x + 2) = 27$, what is the value of x ?

Write your answer: _____

12 $y = 3x$

$2x + y = 25$

If (x, y) is the solution to the system of equations, what is the value of y ?

Write your answer: _____

- 13** The function g is defined by $g(x) = 2^x + 5$. What is the value of $g(3)$?

Write your answer: _____

- 14** What value of x satisfies the equation $\sqrt{x + 5} = 4$?

Write your answer: _____

- 15** A rectangular garden is 12 meters long and 7.5 meters wide. What is the area, in square meters, of the garden?

Write your answer: _____

- 16** A phone has 64 gigabytes (GB) of storage, and 18.5 GB are already used. Each video Lin records uses 1.2 GB. What is the maximum number of videos Lin can record without exceeding the phone's storage?

- A) 37
 - B) 38
 - C) 53
 - D) 15
-

- 17** A candle is 30 centimeters tall when it is lit. It burns at a constant rate, and after 4 hours it is 22 centimeters tall. Which function gives the height $h(t)$, in centimeters, of the candle t hours after it is lit?

- A) $h(t) = 30 - 2t$
 - B) $h(t) = 30 - 8t$
 - C) $h(t) = 22 - 2t$
 - D) $h(t) = 30 - 4t$
-

18 The equation $1.5x + 2y = 30$ relates the number of pounds of peanuts, x , and the number of pounds of almonds, y , that a store can buy for exactly \$30. What is the best interpretation of the y -intercept of the graph of this equation in the xy -plane?

- A) Almonds cost \$15 per pound.
- B) The store must buy at least 15 pounds of almonds.
- C) The store can buy 15 pounds of peanuts if it buys no almonds.
- D) The store can buy 15 pounds of almonds if it buys no peanuts.

19 For the exponential function f , $f(0) = 5$ and $f(1) = 15$. What is the value of $f(3)$?

- A) 35
- B) 45
- C) 75
- D) 135

20 What is the sum of the solutions to the equation $|2x - 5| = 9$?

- A) -2
- B) 5
- C) 7
- D) 9

21 A café owner found that the line of best fit $y = -3.2x + 260$ models the number of cups of hot chocolate sold, y , on a day with an average temperature of x degrees Fahrenheit. According to the model, how many cups of hot chocolate are predicted to be sold on a day with an average temperature of 45°F ?

- A) 144
- B) 212
- C) 404
- D) 116

22 In right triangle ABC , angle C is the right angle and $\sin A = \frac{5}{13}$. What is the value of $\cos B$?

- A) $\frac{12}{13}$
- B) $\frac{5}{13}$
- C) $\frac{12}{5}$
- D) $\frac{13}{5}$

STOP. If you finish before time is up, check your work on this module only.

Math, Module 2 (Harder)

22 questions
35 minutes

The Desmos graphing calculator and the reference sheet are allowed on every question. For multiple-choice questions, circle your answer. For student-produced response questions, write your answer in the blank. A positive answer can be up to 5 characters, a negative answer up to 6. Fractions and decimals are both fine.

- 1** Line ℓ in the xy -plane is defined by $6x - 3y = 9$. Which equation defines a line perpendicular to line ℓ ?
- A) $2x - y = 4$
 - B) $x - 2y = 7$
 - C) $2x + y = 7$
 - D) $x + 2y = 7$
-
- 2** A baker uses 2.5 cups of flour for each loaf of bread and 0.75 cup of flour for each batch of muffins. One day she used exactly 40 cups of flour and baked 10 loaves of bread. How many batches of muffins did she bake?
- A) 6
 - B) 15
 - C) 20
 - D) 25
-
- 3** Rental company P charges a flat fee of \$25 plus \$0.30 per mile driven. Rental company Q charges a flat fee of \$40 plus \$0.20 per mile driven. For how many miles driven will the two companies charge the same amount?
- A) 50
 - B) 75
 - C) 150
 - D) 325
-
- 4** What are the solutions to the equation $x^2 + 8x = 9$?
- A) -9 and 1
 - B) 9 and -1
 - C) -8 and 0
 - D) -3 and 3
-

5 For $x > 0$, which expression is equivalent to $x^{\frac{3}{2}}$?

- A) $\sqrt{x^3}$
 - B) $\sqrt[3]{x^2}$
 - C) $\frac{x^3}{2}$
 - D) $\frac{3x}{2}$
-

6 Researchers examined health records of 5,000 randomly selected adults in a country. They found that adults who reported drinking green tea daily had a lower rate of heart disease than adults who did not. Which of the following conclusions is best supported by the study?

- A) Drinking green tea daily causes a lower risk of heart disease for adults in the country.
 - B) Among adults in the country, drinking green tea daily is associated with a lower rate of heart disease, but it cannot be concluded that green tea causes the lower rate.
 - C) Drinking green tea daily causes a lower risk of heart disease, but only for the 5,000 adults studied.
 - D) No conclusion can be drawn about adults in the country because the participants were not randomly selected.
-

7 A circle with a radius of 4 inches is inscribed in a square, so that the circle touches all four sides of the square. What is the area, in square inches, of the region inside the square but outside the circle?

- A) $16 - 4\pi$
 - B) $64 - 8\pi$
 - C) $32 - 16\pi$
 - D) $64 - 16\pi$
-

8 In the xy -plane, line ℓ is defined by $2ax + 5y = 10$, where a is a constant. Line ℓ is parallel to the line defined by $4x - 10y = 7$. What is the x -intercept of line ℓ ?

- A) $(-5, 0)$
 - B) $(5, 0)$
 - C) $(0, 2)$
 - D) $(-\frac{5}{2}, 0)$
-

9

x	$f(x)$
-1	k
3	10
7	$3k$

The table shows three values of x and their corresponding values of $f(x)$, where f is a linear function and k is a constant. What is the value of $f(0)$?

- A) $\frac{5}{4}$
 - B) 5
 - C) $\frac{25}{4}$
 - D) $\frac{15}{2}$
-

10

$$0.2x + 0.5y = 7.1$$

$$0.3x - 0.4y = -2$$

If (x, y) is the solution to the system of equations above, what is the value of $5x + y$?

- A) 19
 - B) 35.5
 - C) 51
 - D) 71
-

11

$$y \geq ax + 3$$

$$y \leq 4x - 1$$

In the system of inequalities above, a is a constant. For which of the following values of a does the system have no solution?

- A) -4
 - B) $\frac{1}{4}$
 - C) 3
 - D) 4
-

12

How many solutions does the equation $\frac{x}{x-3} + 2 = \frac{3}{x-3}$ have?

- A) Zero
 - B) Exactly one
 - C) Exactly two
 - D) Infinitely many
-

13 In the equation $2x^2 + kx + 8 = 0$, k is a constant. If the equation has no real solutions, which of the following could be the value of k ?

- A) -10
 - B) -8
 - C) 7
 - D) 9
-

14 The quadratic function f is defined by $f(x) = ax^2 + bx + c$, where a , b , and c are constants, $a < 0$, and $c > 0$. Which of the following must be true?

- A) The graph of $y = f(x)$ has a y -intercept below the x -axis.
 - B) The vertex of the graph of $y = f(x)$ lies below the x -axis.
 - C) The function f has no real zeros.
 - D) The function f has two real zeros, one positive and one negative.
-

15 In a random sample of 400 likely voters in a city, 52% said they support candidate A for mayor. The margin of error for the estimate is 5 percentage points. Which of the following is the most appropriate conclusion?

- A) A majority of all likely voters in the city support candidate A.
 - B) Exactly 52% of all likely voters in the city support candidate A.
 - C) Fewer than half of all likely voters in the city support candidate A.
 - D) The poll does not provide convincing evidence that a majority of all likely voters in the city support candidate A.
-

16 An energy analyst selected a random sample of 150 households from the 12,000 households in a city. The mean monthly electricity use for the sample was 870 kilowatt-hours (kWh), with an associated margin of error of 35 kWh. Which of the following is the most appropriate conclusion?

- A) Most households in the city use between 835 and 905 kWh per month.
 - B) It is plausible that the mean monthly electricity use for all households in the city is between 835 and 905 kWh.
 - C) The mean monthly electricity use for all households in the city is exactly 870 kWh.
 - D) Every household in the sample uses between 835 and 905 kWh per month.
-

- 17** In triangle ABC , point D lies on $\overline{AB}$ and point E lies on $\overline{AC}$ such that $\overline{DE}$ is parallel to $\overline{BC}$. If $AD = 6$, $DB = 9$, and the area of triangle ADE is 24, what is the area of quadrilateral $DBCE$?
- A) 36
B) 60
C) 126
D) 150

- 18** What value of x satisfies the equation $\frac{x+3}{4} - \frac{x-1}{6} = 2$?

Write your answer: _____

- 19** The function f is defined by $f(x) = x^2 - 4x$. The graph of $y = g(x)$ is the result of reflecting the graph of $y = f(x)$ across the x -axis and then translating it up 5 units. What is the maximum value of $g(x)$?

Write your answer: _____

- 20** The expression $(ax + 3)(5x + b)$, where a and b are constants, is equivalent to $10x^2 + kx + 21$, where k is a constant. What is the value of k ?

Write your answer: _____

- 21** Gear A, which has 48 teeth, meshes with gear B, which has 18 teeth, so that each tooth of gear A that passes the contact point moves one tooth of gear B. If gear A turns at a constant rate of 75 revolutions per minute, how many revolutions does gear B make in 4 seconds?

Write your answer: _____

- 22** In the xy -plane, the circle with equation $(x + 3)^2 + (y - 1)^2 = 26$ intersects the x -axis at two points. What is the distance between these two points?

Write your answer: _____

STOP. If you finish before time is up, check your work on this module only.

Answer key

For a full explanation of any question, go to the link in the last column. To get your scaled score and weakest areas, enter your answers at satowl.com/score.

Reading and Writing, Module 1

#	Answer	Skill	Full explanation
1	D	Words in Context	satowl.com/q/ra-0152
2	A	Cross-Text Connections	satowl.com/q/ra-0040
3	B	Words in Context	satowl.com/q/ra-0011
4	B	Words in Context	satowl.com/q/ra-0014
5	C	Cross-Text Connections	satowl.com/q/ra-0139
6	C	Cross-Text Connections	satowl.com/q/ra-0080
7	D	Words in Context	satowl.com/q/ra-0093
8	C	Words in Context	satowl.com/q/ra-0013
9	A	Central Ideas and Details	satowl.com/q/ra-0001
10	D	Command of Evidence	satowl.com/q/ra-0046
11	C	Central Ideas and Details	satowl.com/q/ra-0021
12	D	Central Ideas and Details	satowl.com/q/ra-0142
13	B	Central Ideas and Details	satowl.com/q/ra-0123
14	D	Command of Evidence	satowl.com/q/ra-0027
15	B	Command of Evidence	satowl.com/q/ra-0068
16	A	Form, Structure, and Sense	satowl.com/q/rb-0132
17	C	Boundaries	satowl.com/q/rb-0106
18	B	Boundaries	satowl.com/q/rb-0102
19	B	Form, Structure, and Sense	satowl.com/q/rb-0135
20	D	Form, Structure, and Sense	satowl.com/q/rb-0119
21	B	Boundaries	satowl.com/q/rb-0108
22	C	Boundaries	satowl.com/q/rb-0113
23	B	Rhetorical Synthesis	satowl.com/q/rb-0027
24	A	Transitions	satowl.com/q/rb-0051
25	D	Transitions	satowl.com/q/rb-0050
26	D	Rhetorical Synthesis	satowl.com/q/rb-0002
27	B	Transitions	satowl.com/q/rb-0061

Reading and Writing, Module 2 (Easier)

#	Answer	Skill	Full explanation
1	A	Text Structure and Purpose	satowl.com/q/ra-0113
2	C	Text Structure and Purpose	satowl.com/q/ra-0077
3	A	Cross-Text Connections	satowl.com/q/ra-0100
4	B	Text Structure and Purpose	satowl.com/q/ra-0053
5	C	Words in Context	satowl.com/q/ra-0032

6	D	Cross-Text Connections	satowl.com/q/ra-0098
7	A	Cross-Text Connections	satowl.com/q/ra-0059
8	D	Words in Context	satowl.com/q/ra-0073
9	B	Command of Evidence	satowl.com/q/ra-0105
10	B	Central Ideas and Details	satowl.com/q/ra-0041
11	B	Inferences	satowl.com/q/ra-0087
12	C	Inferences	satowl.com/q/ra-0047
13	A	Command of Evidence	satowl.com/q/ra-0145
14	D	Command of Evidence	satowl.com/q/ra-0106
15	A	Central Ideas and Details	satowl.com/q/ra-0102
16	C	Boundaries	satowl.com/q/rb-0084
17	D	Boundaries	satowl.com/q/rb-0078
18	A	Form, Structure, and Sense	satowl.com/q/rb-0157
19	B	Boundaries	satowl.com/q/rb-0092
20	C	Form, Structure, and Sense	satowl.com/q/rb-0155
21	B	Form, Structure, and Sense	satowl.com/q/rb-0130
22	A	Boundaries	satowl.com/q/rb-0075
23	B	Rhetorical Synthesis	satowl.com/q/rb-0021
24	D	Transitions	satowl.com/q/rb-0069
25	C	Transitions	satowl.com/q/rb-0046
26	A	Rhetorical Synthesis	satowl.com/q/rb-0005
27	B	Rhetorical Synthesis	satowl.com/q/rb-0017

Reading and Writing, Module 2 (Harder)

#	Answer	Skill	Full explanation
1	D	Text Structure and Purpose	satowl.com/q/ra-0157
2	B	Text Structure and Purpose	satowl.com/q/ra-0075
3	A	Cross-Text Connections	satowl.com/q/ra-0038
4	C	Words in Context	satowl.com/q/ra-0154
5	B	Words in Context	satowl.com/q/ra-0112
6	D	Cross-Text Connections	satowl.com/q/ra-0119
7	B	Cross-Text Connections	satowl.com/q/ra-0039
8	B	Cross-Text Connections	satowl.com/q/ra-0079
9	C	Inferences	satowl.com/q/ra-0029
10	C	Command of Evidence	satowl.com/q/ra-0126
11	C	Inferences	satowl.com/q/ra-0108
12	D	Inferences	satowl.com/q/ra-0010
13	D	Inferences	satowl.com/q/ra-0151
14	B	Command of Evidence	satowl.com/q/ra-0146
15	D	Central Ideas and Details	satowl.com/q/ra-0023
16	D	Boundaries	satowl.com/q/rb-0096

17	A	Boundaries	satowl.com/q/rb-0107
18	A	Boundaries	satowl.com/q/rb-0098
19	C	Boundaries	satowl.com/q/rb-0099
20	D	Boundaries	satowl.com/q/rb-0087
21	D	Form, Structure, and Sense	satowl.com/q/rb-0144
22	A	Form, Structure, and Sense	satowl.com/q/rb-0137
23	C	Transitions	satowl.com/q/rb-0041
24	B	Transitions	satowl.com/q/rb-0038
25	C	Transitions	satowl.com/q/rb-0070
26	D	Rhetorical Synthesis	satowl.com/q/rb-0022
27	A	Transitions	satowl.com/q/rb-0065

Math, Module 1

#	Answer	Skill	Full explanation
1	C	Linear inequalities in one or two variables	satowl.com/q/ma-0085
2	D	Linear equations in two variables	satowl.com/q/ma-0045
3	A	Linear inequalities in one or two variables	satowl.com/q/ma-0082
4	B	Nonlinear equations in one variable and systems of equations in two variables	satowl.com/q/ma-0125
5	B	Nonlinear equations in one variable and systems of equations in two variables	satowl.com/q/ma-0122
6	A	Percentages	satowl.com/q/mb-0142
7	B	Lines, angles, and triangles	satowl.com/q/mb-0035
8	8	Nonlinear equations in one variable and systems of equations in two variables	satowl.com/q/ma-0126
9	3/5 or 0.6 or .6	Probability and conditional probability	satowl.com/q/mb-0127
10	C	Linear equations in one variable	satowl.com/q/ma-0007
11	C	Linear equations in one variable	satowl.com/q/ma-0012
12	D	Nonlinear equations in one variable and systems of equations in two variables	satowl.com/q/ma-0131
13	A	Nonlinear functions	satowl.com/q/ma-0113
14	A	Inference from sample statistics and margin of error	satowl.com/q/mb-0031
15	10	Linear equations in two variables	satowl.com/q/ma-0054
16	192	Area and volume	satowl.com/q/mb-0114
17	D	Linear equations in one variable	satowl.com/q/ma-0019
18	A	Linear inequalities in one or two variables	satowl.com/q/ma-0097
19	D	Equivalent expressions	satowl.com/q/ma-0157
20	6	Nonlinear functions	satowl.com/q/ma-0117
21	60	Ratios, rates, proportional relationships, and units	satowl.com/q/mb-0062
22	1.8 or 9/5	Area and volume	satowl.com/q/mb-0094

Math, Module 2 (Easier)

#	Answer	Skill	Full explanation
1	C	Systems of two linear equations in two variables	satowl.com/q/ma-0061
2	D	Linear inequalities in one or two variables	satowl.com/q/ma-0081

3	A	Equivalent expressions	satowl.com/q/ma-0141
4	C	Equivalent expressions	satowl.com/q/ma-0146
5	C	Nonlinear functions	satowl.com/q/ma-0105
6	B	Ratios, rates, proportional relationships, and units	satowl.com/q/mb-0061
7	C	Percentages	satowl.com/q/mb-0063
8	C	Ratios, rates, proportional relationships, and units	satowl.com/q/mb-0050
9	B	Circles	satowl.com/q/mb-0158
10	5	Linear inequalities in one or two variables	satowl.com/q/ma-0083
11	7	Linear equations in one variable	satowl.com/q/ma-0003
12	15	Systems of two linear equations in two variables	satowl.com/q/ma-0062
13	13	Nonlinear functions	satowl.com/q/ma-0103
14	11	Nonlinear equations in one variable and systems of equations in two variables	satowl.com/q/ma-0123
15	90	Area and volume	satowl.com/q/mb-0153
16	A	Linear inequalities in one or two variables	satowl.com/q/ma-0092
17	A	Linear functions	satowl.com/q/ma-0027
18	D	Linear equations in two variables	satowl.com/q/ma-0053
19	D	Nonlinear functions	satowl.com/q/ma-0111
20	B	Nonlinear equations in one variable and systems of equations in two variables	satowl.com/q/ma-0132
21	D	Two-variable data: models and scatterplots	satowl.com/q/mb-0056
22	B	Right triangles and trigonometry	satowl.com/q/mb-0010

Math, Module 2 (Harder)

#	Answer	Skill	Full explanation
1	D	Linear equations in two variables	satowl.com/q/ma-0051
2	C	Linear equations in two variables	satowl.com/q/ma-0052
3	C	Linear equations in one variable	satowl.com/q/ma-0011
4	A	Nonlinear equations in one variable and systems of equations in two variables	satowl.com/q/ma-0133
5	A	Equivalent expressions	satowl.com/q/ma-0150
6	B	Evaluating statistical claims: observational studies and experiments	satowl.com/q/mb-0032
7	D	Area and volume	satowl.com/q/mb-0152
8	A	Linear equations in two variables	satowl.com/q/ma-0056
9	C	Linear functions	satowl.com/q/ma-0040
10	C	Systems of two linear equations in two variables	satowl.com/q/ma-0078
11	D	Linear inequalities in one or two variables	satowl.com/q/ma-0096
12	A	Nonlinear equations in one variable and systems of equations in two variables	satowl.com/q/ma-0138

13	C	Nonlinear equations in one variable and systems of equations in two variables	satowl.com/q/ma-0135
14	D	Nonlinear functions	satowl.com/q/ma-0120
15	D	Inference from sample statistics and margin of error	satowl.com/q/mb-0130
16	B	Inference from sample statistics and margin of error	satowl.com/q/mb-0017
17	C	Lines, angles, and triangles	satowl.com/q/mb-0020
18	13	Linear equations in one variable	satowl.com/q/ma-0016
19	9	Nonlinear functions	satowl.com/q/ma-0115
20	29	Equivalent expressions	satowl.com/q/ma-0155
21	40/3 or 13.33 or 13.34	Ratios, rates, proportional relationships, and units	satowl.com/q/mb-0022
22	10	Circles	satowl.com/q/mb-0140