

Name: \_\_\_\_\_ School: \_\_\_\_\_

<b>Reading &amp; Writing /800</b>		<b>Math /800</b>	
<b>Module 1 32 min</b>	<b>Module 2 32 min</b>	<b>Module 1 37 min</b>	<b>Module 2 37 min</b>
Raw score:	Raw score:	Raw score:	Raw score:
1.	1.	1.	1.
2.	2.	2.	2.
3.	3.	3.	3.
4.	4.	4.	4.
5.	5.	5.	5.
6.	6.	6.	6.
7.	7.	7.	7.
8.	8.	8.	8.
9.	9.	9.	9.
10.	10.	10.	10.
11.	11.	11.	11.
12.	12.	12.	12.
13.	13.	13.	13.
14.	14.	14.	14.
15.	15.	15.	15.
16.	16.	16.	16.
17.	17.	17.	17.
18.	18.	18.	18.
19.	19.	19.	19.
20.	20.	20.	20.
21.	21.	21.	21.
22.	22.	22.	22.
23.	23.		
24.	24.		
25.	25.		
26.	26.		
27.	27.		

## Uniform Scoring Chart (To be curved)

		English M1 Raw Score																
		27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11
M2 Raw Score	27	80	78	77	75	73	71	70	68	66	65	63	61	60	58	57	56	55
	26	79	77	76	74	72	70	69	67	65	64	62	60	59	57	56	55	54
	25	77	75	74	72	70	68	67	65	63	62	60	58	57	55	54	53	52
	24	76	74	73	71	69	67	66	64	62	61	59	57	56	54	53	52	51
	23	75	73	72	70	68	66	65	63	61	60	58	56	55	53	52	51	50
	22	74	72	71	69	67	65	64	62	60	59	57	55	54	52	51	50	49
	21	72	70	69	67	65	63	62	60	58	57	55	53	52	50	49	48	47
	20	70	68	67	65	63	61	60	58	56	55	53	51	50	48	47	46	45
	19	69	67	66	64	62	60	59	57	55	54	52	50	49	47	46	45	44
	18	68	66	65	63	61	59	58	56	54	53	51	49	48	46	45	44	43
	17	67	65	64	62	60	58	57	55	53	52	50	48	47	45	44	43	42
16	66	64	63	61	59	57	56	54	52	51	49	47	46	44	43	42	41	
15	65	63	62	60	58	56	55	53	51	50	48	46	45	43	42	41	40	
14	64	62	61	59	57	55	54	52	50	49	47	45	44	42	41	40	39	
13	63	61	60	58	56	54	53	51	49	48	46	44	43	41	40	39	38	
12	62	60	59	57	55	53	52	50	48	47	45	43	42	40	39	38	37	
11	61	59	58	56	54	52	51	49	47	46	44	42	41	39	38	37	36	

		Math M1 Raw Score												
		22	21	20	19	18	17	16	15	14	13	12	11	
M2 Raw Score	22	80	78	76	74	72	69	67	65	63	61	59	57	
	21	79	77	75	73	71	68	66	64	62	60	58	56	
	20	77	75	73	71	69	66	64	62	60	58	56	54	
	19	76	74	72	70	68	65	63	61	59	57	55	53	
	18	74	72	70	68	66	63	61	59	57	55	53	51	
	17	73	71	69	67	65	62	60	58	56	54	52	50	
	16	71	69	67	65	63	60	58	56	54	52	50	48	
	15	70	68	66	64	62	59	57	55	53	51	49	47	
	14	68	66	64	62	60	57	55	53	51	49	47	45	
	13	67	65	63	61	59	56	54	52	50	48	46	44	
	12	66	64	62	60	58	55	53	51	49	47	45	43	
11	65	63	61	59	57	54	52	50	48	46	44	42		



Detective James Caldwell's keen observational skills and attention to detail, honed through years of experience and training with Scotland Yard, enabled him to pick up on clues that others might overlook. His ability to \_\_\_\_\_ patterns and connections, akin to the legendary fictional detective Sherlock Holmes, was instrumental in solving complex cases, including the infamous Whitmore Heist and the enigmatic case of the Vanishing Violinist.

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Mark for Review

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

 A distort A B obfuscate B C distinguish C D trivialize D

Jiu-jitsu, a martial art that originated in Japan, has gained popularity worldwide for its emphasis on technique, leverage, and ground fighting. Advocates of jiu-jitsu often \_\_\_\_\_ its effectiveness as a practical form of self-defense for individuals of any size or strength.

2

Mark for Review

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

 A disparage A B undermine B C extol C D neglect D

## Module 1

### Section 1, Module 1: Reading & Writing



The following text is adapted from Anton Chekov's 1904 play "Cherry Orchard."

EPIKHODOV: There's a frost this morning--three degrees, and the cherry-trees are all in flower. I can't approve of our climate. [Sighs] I can't. Our climate is indisposed to favour us even this once. And, Ermolai Alexeyevitch, allow me to say to you, in addition, that I bought myself some boots two days ago, and I beg to assure you that they squeak in a perfectly unbearable manner. What shall I put on them?

LOPAKHIN: Go away. You bore me.

EPIKHODOV: Some misfortune happens to me every day. But I don't complain; I'm used to it, and I can smile. [DUNYASHA comes in and brings LOPAKHIN some kvass] I shall go. [Knocks over a chair] There... [Triumphantly] There, you see, if I may use the word, what circumstances I am in, so to speak. It is even simply marvellous. [Exit.]

3

Mark for Review

An used in the text, what does the word "indisposed" most nearly mean?

- (A) infirm (A)
- (B) reluctant (B)
- (C) anxious (C)
- (D) inclined (D)

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### Section 1, Module 1: Reading & Writing



The discovery of Teflon, a nonstick polymer accidentally invented by chemist Roy Plunkett in 1938, led to a wide range of innovative applications, from nonstick cookware to aerospace engineering. This \_\_\_\_ material has been praised for its unique properties, including its resistance to heat and chemical reactions.

4

Mark for Review

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

- (A) mundane (A)
- (B) versatile (B)
- (C) adept (C)
- (D) enchanting (D)

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## Section 1, Module 1: Reading &amp; Writing



The following text is adapted from Robert Frost's 1923 poem "Stopping by Woods on a Snowy Evening." The poem describes a serene, snowy scene.

Whose woods these are I think I know.  
His house is in the village though;  
He will not see me stopping here  
To watch his woods fill up with snow.  
My little horse must think it queer  
To stop without a farmhouse near  
Between the woods and frozen lake  
The darkest evening of the year.

5

Mark for Review

Which choice best states the main purpose of the text?

- A To convey a sense of solitude and quiet contemplation, as the speaker observes the snow falling in the woods.
- B To evoke a feeling of warmth and cheerful camaraderie, as the speaker shares a moment with his horse.
- C To express a strong desire for adventure and exploration, with the woods and frozen lake providing a backdrop for discovery.
- D To create an overwhelming sense of fear and unease, as the speaker stops in the woods on the darkest evening of the year.

## Section 1, Module 1: Reading &amp; Writing



The following text is adapted from Adam Smith's 1776 work "An Inquiry into the Nature and Causes of the Wealth of Nations."

In every other art and manufacture, the effects of the division of labour are similar to what they are in this very trifling one, though, in many of them, the labour can neither be so much subdivided, nor reduced to so great a simplicity of operation. The division of labour, however, so far as it can be introduced, occasions, in every art, a proportionable increase of the productive powers of labour. The separation of different trades and employments from one another, seems to have taken place in consequence of this advantage. This separation, too, is generally carried furthest in those countries which enjoy the highest degree of industry and improvement; what is the work of one man, in a rude state of society, being generally that of several in an improved one. In every improved society, the farmer is generally nothing but a farmer; the manufacturer, nothing but a manufacturer.

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Mark for Review

Which choice best describes the function of the underlined sentence in the text as a whole?

- A It elaborates on the premise of division of labor, illustrating its variance between societies with disparate levels of advancement.
- B It provides a historical account of how different trades and employments evolved and separated overtime.
- C It depicts the limiting factors that impede the full implementation of the division of labor in certain societies.
- D It emphasizes the role of the individual as solely a farmer or a manufacturer in societies that have undergone industrial improvement.

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## Section 1, Module 1: Reading &amp; Writing



The following text is adapted from John Masefield's 1902 poem "Sea Fever."

I must go down to the seas again, to the lonely sea and the sky.

And all I ask is a tall ship and a star to steer her by;  
And the wheel's kick and the wind's song and the white sail's shaking,  
And a grey mist on the sea's face, and a grey dawn breaking.

I must go down to the seas again, for the call of the running tide  
Is a wild call and a clear call that may not be denied;  
And all I ask is a windy day with the white clouds flying,  
And the flung spray and the blown spume, and the sea-gulls crying.

7

Mark for Review

Which choice best describes the function of the underlined portion in the text as a whole?

- (A) It highlights the solitude and loneliness that the sea represents. (A)
- (B) It emphasizes the importance of being properly equipped for seafaring and maritime exploration. (B)
- (C) It contrasts the serenity and peace of the sea with the turmoil of the speaker's life. (C)
- (D) It conveys the speaker's deep longing for the sea and the simplicity of his desires. (D)

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## Section 1, Module 1: Reading &amp; Writing



Marie Tharp, a trailblazing American geologist and oceanographic cartographer, revolutionized the field of oceanography in the mid-20th century. Her groundbreaking research, conducted alongside Bruce Heezen in the 1950s and 1960s, culminated in the creation of the first detailed maps of the ocean floor. These maps revealed the presence of a continuous underwater mountain range, known as the mid-ocean ridge, which had previously eluded discovery. Some geologists of that era asserted that the features of the ocean floor were largely static and unchanging. Tharp's work, however, hinted at a dynamic ocean floor and provided critical support for the then-emerging theory of plate tectonics, which posits that the Earth's lithosphere is divided into plates that move over the asthenosphere.

8

Mark for Review

Which finding, if true, would most directly support the claim made by geologists who believed that the features of the ocean floor were largely static and unchanging?

- (A) Observations of the ocean floor made several decades after Tharp's maps showed virtually no changes in the position or structure of the midocean ridges, suggesting that they might be static. (A)
- (B) Technological advancements enabled the capture of high-resolution images of the ocean floor, revealing that the features identified by Tharp remained unchanged in form and location over an extended period. (B)
- (C) Sediment samples taken from the mid-ocean ridges showed a consistent composition over time, indicating that there has been little to no geological activity in those areas for thousands of years. (C)
- (D) Comparisons of Tharp's original maps with contemporary mapping data revealed striking similarities, with no evidence of shifts or changes in the underwater mountain ranges or other features of the ocean floor. (D)

## Section 1, Module 1: Reading &amp; Writing



The following text is adapted from Kate Chopin's 1893 short story "Desirée's Baby." Desirée, a young mother, begins to sense something amiss in her environment.

When the baby was about three months old, Desirée awoke one day to the conviction that there was something in the air menacing her peace. It was at first too subtle to grasp. It had only been a disquieting suggestion; an air of mystery among the blacks; unexpected visits from far-off neighbors who could hardly account for their coming. Then a strange, an awful change in her husband's manner, which she dared not ask him to explain. When he spoke to her, it was with averted eyes, from which the old love-light seemed to have gone out.

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Mark for Review

Which choice best states the main idea of the text?

- (A) Desirée is concerned about her husband's health as he seems to be distancing himself.
- (B) Desirée becomes increasingly aware of a disturbing change in her husband's demeanor.
- (C) Desirée is desperately trying to confront her husband about his infidelity.
- (D) Desirée regrets not communicating openly with her husband about family matters.

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## Section 1, Module 1: Reading &amp; Writing



The following text is adapted from Samuel Taylor Coleridge's 1798 poem "The Rime of the Ancient Mariner." The poem narrates the tale of a mariner who faces supernatural events during a sea voyage.

The ship drove fast, loud roared the blast,  
And southward aye we fled.  
And now there came both mist and snow,  
And it grew wondrous cold:  
And ice, mast-high, came floating by,  
As green as emerald.  
And through the drifts the snowy clifts  
Did send a dismal sheen.

10

Mark for Review

What is the main idea of the text?

- (A) The speaker is recalling a peaceful and idyllic journey at sea.
- (B) The speaker is describing the harsh and dangerous conditions encountered during a stormy sea voyage.
- (C) The speaker is lamenting the beauty of the icy landscape they left behind.
- (D) The speaker is celebrating the safe arrival at their destination after a perilous journey.

Section 1, Module 1: Reading & Writing



"Ode to the West Wind" is an 1818 poem by Percy Bysshe Shelley. In the poem, Shelley seeks a transformative connection with the natural force of the wind, writing, \_\_\_\_\_

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Mark for Review

Which quotation from "Ode to the West Wind" most effectively illustrates the claim?

- (A) "O wild West Wind, thou breath of Autumn's being / Thou, from whose unseen presence the leaves dead / Are driven, like ghosts from an enchanter fleeing." ⓐ
- (B) "Make me thy lyre, even as the forest is: / What if my leaves are falling like its own! / The tumult of thy mighty harmonies." ⓑ
- (C) "Drive my dead thoughts over the universe / Like wither'd leaves to quicken a new birth!" ⓒ
- (D) "A heavy weight of hours has chain'd and bow'd / One too like thee: tameless, and swift, and proud." ⓓ

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Section 1, Module 1: Reading & Writing



Volcano	Eruption Intensity	Sulfur Emissions (tons)	Ash Emissions (tons)
V1	2	5,000	10,000
V2	4	10,000	15,000
V3	6	15,000	100,000
V4	8	20,000	500,000
V5	10	25,000	3,000,000

The table presents data on eruption intensity, sulfur emissions, and ash emissions for five volcanoes. Researchers claim that of high-intensity eruptions have a more negative impact on the environment by emitting harmful sulfur and ash. They posit that while sulfur emissions tend to reflect a linear increase, ash emissions exponentially increase with eruption intensity increases.

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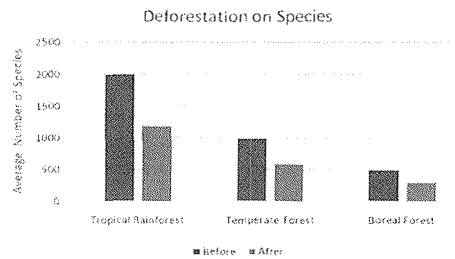
Mark for Review

Which choice best describes data from the table that support the researchers' claim?

- (A) Volcano V1 has a lower eruption intensity and lower sulfur and ash emissions than Volcano V4. ⓐ
- (B) Volcano V2, in comparison to Volcano V1, experienced considerable increases in ash emissions while more minor increases in sulfur emissions. ⓑ
- (C) Volcano V5, in comparison to Volcano V2, experienced considerable increases in ash emissions while more minor increases in sulfur emissions. ⓒ
- (D) Volcano V5 has the highest eruption intensity and the highest sulfur and ash emissions. ⓓ



Section 1, Module 1: Reading & Writing



Ecologists are investigating the impact of deforestation on the biodiversity of three different ecosystems: tropical rainforests, temperate forests, and boreal forests. They have collected data on the average number of species found in these ecosystems before and after deforestation events. Ecologists claim depending on the kinds of species existing within a certain ecosystem, the extent to which deforestation impacts species varies, for certain species have immunity to the effects of the less-oxygen filled environment created by deforestation.

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Mark for Review

Which statement best describes the data from the graph that supports the ecologists' investigation of the impact of deforestation on biodiversity?

- (A) Biodiversity remained constant in all three ecosystems after deforestation events. Ⓐ
- (B) Biodiversity decreased in all three ecosystems after deforestation events, with the greatest decrease in tropical rainforest, demonstrating tropical rainforest's limited susceptibility to deforestation. Ⓑ
- (C) Biodiversity decreased in all three ecosystems after deforestation events, with the least pronounced decrease in temperate forests, demonstrating temperate forest's must have species who can survive in less oxygenated environments. Ⓒ
- (D) Biodiversity decreased in all three ecosystems after deforestation events, with the least pronounced decrease in boreal forests, demonstrating boreal forest's limited susceptibility to deforestation. Ⓓ

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Section 1, Module 1: Reading & Writing



The Middle East has a long and complex history marked by geopolitical conflicts, cultural diversity, and natural resource abundance. The Sykes-Picot Agreement, signed in 1916 by the United Kingdom and France, is considered a pivotal moment in the region's history, as it divided the region into spheres of influence, leading to the modern borders of many Middle Eastern countries. Critics argue that the Sykes-Picot Agreement disregarded ethnic and religious groups, contributing to tensions and conflicts that persist today. If historical analyses demonstrate that the territories defined by the Sykes-Picot Agreement experienced a higher prevalence of conflict than areas with borders determined by natural or pre-existing cultural boundaries, this would suggest that \_\_\_\_\_

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Mark for Review

Which choice most logically completes the text?

- (A) the Sykes-Picot Agreement may have played a role in exacerbating ethnic and religious tensions in the Middle East. Ⓐ
- (B) the Sykes-Picot Agreement was a successful diplomatic endeavor that fostered regional stability to an extent. Ⓑ
- (C) natural and pre-existing cultural boundaries are not significant factors in determining the likelihood of conflict. Ⓒ
- (D) the historical context in which the Sykes-Picot Agreement was signed had no lasting impact on the Middle East. Ⓓ

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## Section 1, Module 1: Reading &amp; Writing



Annotate



Skara Brae is an archaeological site on the Orkney Islands in present-day Scotland and was a remarkably well-preserved Neolithic settlement dating from around 3180 BCE to about 2500 BCE. Archaeologist Fiona McLeod recently traveled to Skara Brae to study its ancient dwellings and \_\_\_\_ into a midden mound and initially revealed by a severe storm, these stone-built houses, interconnected by covered passageways, seem to offer an intimate window into the daily lives and social structures of the Neolithic people, painting a vivid tapestry of human ingenuity and adaptability in an era shrouded by the mists of time.

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Mark for Review

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

 (A) artifacts built (B) artifacts, built (C) artifacts and built (D) artifacts. Built

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## Section 1, Module 1: Reading &amp; Writing



Annotate



The ancient city of Rome, once the center of a vast empire, is home to many remarkable architectural wonders, such as the Colosseum, the Roman Forum, and the \_\_\_\_ flock to the city to explore its rich history and culture.

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Mark for Review

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

 (A) Pantheon – tourists (B) Pantheon. Tourists (C) Pantheon, tourists (D) Pantheon

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## Section 1, Module 1: Reading &amp; Writing



The theory of plate tectonics, which explains the movement of Earth's lithosphere, has deepened our understanding of geological processes, such as earthquakes, volcanic activity, \_\_\_\_\_ the formation of mountain ranges.

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Mark for Review

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

- (A) even
- (B) and even,
- (C) and even
- (D) and, even



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## Section 1, Module 1: Reading &amp; Writing



Inventor and aviation pioneer Igor Sikorsky made remarkable strides in the field of aeronautics, forever changing the landscape of air transportation. Celebrated as one of the most influential contributions to aviation history, \_\_\_\_\_ was the first aircraft of its kind to enter full-scale production. This revolutionary helicopter opened up new possibilities for air travel, rescue operations, and military applications, leaving a lasting legacy on the industry.

18

Mark for Review

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

- (A) Sikorsky developed the Vought-Sikorsky VS-300 in 1939; it
- (B) in 1939 Sikorsky developed the Vought - Sikorsky VS-300, which
- (C) Sikorsky 1939 Vought-Sikorsky VS-300
- (D) the Vought-Sikorsky VS-300 was developed by Sikorsky in 1939 and

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## Section 1, Module 1: Reading &amp; Writing



Annotate



The ancient Maya civilization, which flourished in present-day Mexico and Central America, developed an advanced system of writing, mathematics, and astronomy, leaving behind a rich legacy that \_\_\_\_\_ modern scholars and archaeologists.

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Mark for Review

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

 (A) continually fascinate,

 (B) continues to fascinate

 (C) fascinates

 (D) fascinating


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## Section 1, Module 1: Reading &amp; Writing



Annotate



The 19th-century author Jane Austen's novels, which often explore the complexities of social class and gender roles in her time, continue to be appreciated by readers today; many of her works have been adapted into films and television series. Her keen observations and wit make her stories \_\_\_\_\_.

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Mark for Review

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

 (A) relatable, even, two centuries later.

 (B) relatable; even two centuries later.

 (C) relatable even two centuries later.

 (D) relatable even, two centuries later.


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## Section 1, Module 1: Reading &amp; Writing



The concept of natural selection, introduced by Charles Darwin and Alfred Russel Wallace, revolutionized our understanding of biological evolution. According to this theory, organisms with advantageous traits are more likely to survive and reproduce. \_\_\_\_\_, over generations, these favorable traits become more common within a population.

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Mark for Review

Which choice completes the text with the most logical transition?

- (A) Therefore,
- (B) On the contrary,
- (C) In contrast,
- (D) Meanwhile,

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## Section 1, Module 1: Reading &amp; Writing



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

- "Animal Farm" is an allegorical novella by George Orwell, published in 1945.
- The story is set on a farm where the animals revolt against their human owner, Mr. Jones, and establish a new society.
- The novel serves as a satirical critique of the Russian Revolution and the rise of Stalinism.
- The characters in "Animal Farm" represent various historical figures and factions involved in the Russian Revolution and its aftermath.
- The story explores themes of power, corruption, and the dangers of totalitarianism.

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Mark for Review

The student wants to explain the allegorical nature of "Animal Farm." Which choice most effectively uses relevant information from the notes to accomplish this goal?

- (A) "Animal Farm" is a satirical novella by George Orwell that tells the story of a group of animals who revolt against their human owner and establish a new society on the farm.
- (B) The characters in "Animal Farm" represent various historical figures and factions involved in the Russian Revolution, serving as a critique of Stalinism and the dangers of totalitarianism.
- (C) Set on a farm where animals overthrow their human owner, "Animal Farm" explores themes of power, corruption, and the perils of unchecked authority through its allegorical representation of the Russian Revolution.
- (D) As an allegorical novella, "Animal Farm" uses the story of a farm animal rebellion to satirize the Russian Revolution and critique the rise of Stalinism, highlighting the destructive effects of animal exploitation.

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## Section 1, Module 1: Reading &amp; Writing



Annotate

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

- Photosynthesis is the process by which plants, algae, and some bacteria convert light energy into chemical energy.
- During photosynthesis, carbon dioxide and water are used to produce glucose and oxygen.
- Photosynthesis occurs in the chloroplasts of plant cells, which contain chlorophyll.
- Chlorophyll is a pigment that absorbs light energy and plays a crucial role in photosynthesis.

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Mark for Review

The student wants to describe the role of chlorophyll in photosynthesis. Which choice most effectively uses relevant information from the notes to accomplish this goal?

(A) Photosynthesis is a process that occurs in the chloroplasts of plant cells, where light energy is used to produce glucose and oxygen from carbon dioxide and water.

(B) In photosynthesis, chlorophyll is a pigment found in chloroplasts that absorbs light energy, playing a crucial role in the conversion of light energy into chemical energy.

(C) The process of photosynthesis involves plants, algae, and some bacteria using carbon dioxide and water to produce glucose and oxygen, with chlorophyll aiding in energy conversion.

(D) During photosynthesis, chlorophyll is essential for the production of glucose and oxygen, as it facilitates the absorption of light energy needed for the process.

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## Section 1, Module 1: Reading &amp; Writing



Annotate

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

- The mantis shrimp is a marine crustacean known for its powerful punch.
- It uses its specialized appendages to strike prey at incredibly high speeds.
- The mantis shrimp's punch can generate cavitation bubbles, which produce a secondary shockwave.
- Its eyes have a highly complex structure and can detect multiple types of light.
- Mantis shrimp can be divided into two main groups: "smashers" and "spearers."

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Mark for Review

The student wants to emphasize the mantis shrimp's unique visual abilities. Which choice most effectively uses relevant information from the notes to accomplish this goal?

(A) The mantis shrimp, known for its powerful punch and specialized appendages, has highly complex eyes that can rapidly detect a wide spectrum of light.

(B) Mantis shrimp are marine crustaceans that use their powerful punch to generate cavitation bubbles, which produce a secondary shockwave.

(C) The mantis shrimps have a highly complex eye structure, which enables the detection of various types of light.

(D) Mantis shrimp are divided into two main groups, "smashers" and "spearers," and are known for their powerful punch and ability to strike prey at high speeds.

## Section 1, Module 1: Reading &amp; Writing



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

- The civil rights movement in the United States aimed to end racial segregation and discrimination against African Americans.
- The movement took place primarily between the 1950s and the 1960s.
- Key figures in the movement included Martin Luther King Jr., Rosa Parks, and Malcolm X.
- Nonviolent protest and civil disobedience were central strategies used by activists.
- The Civil Rights Act of 1964 and the Voting Rights Act of 1965 were significant legislative achievements of the movement.

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Mark for Review

The student wants to emphasize the strategies used by civil rights activists. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- (A) The civil rights movement sought to end racial segregation and discrimination, with key figures like Martin Luther King Jr. and Rosa Parks utilizing nonviolent protest and civil disobedience as central strategies.
- (B) Martin Luther King Jr., Rosa Parks, and Malcolm X were influential leaders in the civil rights movement, which aimed to end racial discrimination and segregation in the United States.
- (C) The Civil Rights Act of 1964 and the Voting Rights Act of 1965 were landmark achievements of the civil rights movement, which relied on nonviolent protest and civil disobedience to advance its goals.
- (D) Taking place primarily in the 1950s and 1960s, the civil rights movement was marked by the use of nonviolent protest and civil disobedience to challenge racial segregation and discrimination.

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## Section 1, Module 1: Reading &amp; Writing



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

- The Stanford prison experiment was a social psychology study conducted in 1971.
- Philip Zimbardo led the study, which aimed to investigate the psychological effects of perceived power and authority.
- Participants were randomly assigned the roles of prisoners and guards in a simulated prison environment.
- The experiment was terminated early due to the extreme behaviors exhibited by the participants.
- The study raised ethical concerns and highlighted the power of situational factors in human behavior.

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Mark for Review

The student wants to emphasize the main findings of the Stanford prison experiment. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- (A) The Stanford prison experiment led by Philip Zimbardo, demonstrated the powerful influence of situational factors on human behavior, as participants exhibited extreme behaviors in their assigned roles.
- (B) Conducted in 1971, the Stanford prison experiment aimed to investigate the psychological effects of power and authority, with participants randomly assigned roles as prisoners or guards in a simulated environment.
- (C) The Stanford prison experiment was terminated early due to ethical concerns and the extreme behaviors of participants, shedding light on the potential dangers of unchecked power dynamics in social settings.
- (D) Philip Zimbardo's controversial Stanford prison experiment revealed the impact of perceived power and authority on human behavior, sparking debates on ethical considerations in psychological research.

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## Section 1, Module 1: Reading &amp; Writing



Annotate

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

- The Hanseatic League was a commercial and defensive confederation of merchant guilds and market towns in Northwestern and Central Europe.
- It was formed in the late 12th century and lasted until the 17th century.
- The league protected economic interests and diplomatic privileges in the cities and countries and along the trade routes the merchants visited.
- The Hanseatic cities had their own legal system and furnished their own protection and mutual aid.

27

Mark for Review

The student wants to discuss the main functions of the Hanseatic League. Which choice most effectively uses relevant information from the notes to accomplish this goal?

(A) The Hanseatic League was a group of merchant guilds and market towns that existed from the late 12th to the 17th century.

(B) The Hanseatic League was a commercial and defensive confederation that protected economic interests, diplomatic privileges, and provided mutual aid among the members.

(C) The Hanseatic League was a confederation that had its own legal system and provided protection for its members.

(D) The Hanseatic League lasted until the 17th century, providing a unique legal system and mutual aid among its members.

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Section 1, Module 1: Reading &amp; Writing

32:00



Dr. Marissa Baskett, a revered marine biologist from the University of California, Davis, dedicated her illustrious career to the extensive study of coral reefs, specifically honing in on the pernicious impacts of climate change on these resplendent yet fragile underwater ecosystems. Her research, featured in premier journals such as "Nature," has had a \_\_\_\_\_ effect on the concerted global conservation efforts to protect the biodiversity housed within these delicate aquatic habitats.

1

Mark for Review

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

 (A) undermining

 (A)

 (B) galvanizing

 (B)

 (C) refuting

 (C)

 (D) obfuscating

 (D)



Section 1, Module 1: Reading &amp; Writing



Film director Christopher Nolan frequently \_\_\_\_\_ non-linear storytelling in his movies: this technique is evident in his film Memento, which tells the story of a man with short-term memory loss using a disjointed, reverse-order timeline.

2

Mark for Review

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

 (A) shuns

 (A)

 (B) employs

 (B)

 (C) debunk

 (C)

 (D) derides

 (D)

1

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## Section 1, Module 2: Reading &amp; Writing



Annotate



Led by the indomitable Dr. Robert Ballard, best known for his discovery of the Titanic shipwreck, the team of intrepid scientists from the Ocean Exploration Trust faced arduous weather conditions, technical glitches, and the treacherous depths of the ocean during their expedition aboard the research vessel E/V Nautilus. Despite the multitude of adversities, they remained unwaveringly \_\_\_\_ in their dogged pursuit of valuable data. Their determination culminated in several groundbreaking discoveries that enriched our understanding of marine geology and biology.

3

Mark for Review

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

 (A) dauntless

 (A)

 (B) apprehensive

 (B)

 (C) listless

 (C)

 (D) vacillating

 (D)

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## Section 1, Module 2: Reading &amp; Writing



Annotate



Dr. Danielle Fong, a relatively lesser-known but immensely significant figure in the scientific community, and co-founder of LightSail Energy, has been passionately working towards revolutionizing energy storage solutions. With her forward-thinking vision, she aims to facilitate a future where sustainable energy solutions are not just a dream but a widespread reality. This \_\_\_\_ idea, marked by its inventiveness, galvanized a cohort of researchers and enthusiasts to join the burgeoning movement for a cleaner, more sustainable world, and has kindled interest among stakeholders to recognize the potential of renewable energy storage.

4

Mark for Review

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

 (A) divisive

 (A)

 (B) antiquated

 (B)

 (C) quitotoxic

 (C)

 (D) audacious

 (D)

## Section 1, Module 2: Reading &amp; Writing



## Text 1

In her groundbreaking book “The Human Narrative,” historian Dr. Sophia Brooks puts forth the argument that individual agency has been the driving force behind major historical events. She suggests that focusing on broad sociopolitical structures overlooks the role of influential individuals in shaping societies. Brooks’s theory challenges established historiographical norms, placing the individual at the center of history.

## Text 2

Dr. Adam Price, a sociologist and political theorist, concentrates on the examination of societal structures and institutions. His work highlights the transformative power of these structures in shaping individual actions and social outcomes. Price asserts that individual choices are significantly influenced by larger societal contexts, often beyond the conscious understanding of the individuals themselves.

5

Mark for Review

Based on the texts, how would the researchers mentioned in Text 2 most likely respond to the “conventional wisdom” discussed in Text 1?

- (A) By dismissing the idea that democracies are inherently stable and instead arguing that their stability is contingent upon various factors.
- (B) By agreeing that democracies are generally more stable than autocracies but recognizing the need to address internal challenges to maintain stability.
- (C) By asserting that the stability of a political system is unrelated to its democratic or autocratic nature and depends solely on external factors.
- (D) By suggesting that the perceived stability of democracies is an illusion and that they are no less susceptible to upheaval than autocratic regimes.

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## Section 1, Module 2: Reading &amp; Writing



The following text is an excerpt from James Joyce's 1914 story *The Sisters*. In the story, the narrator describes the protagonist's complex emotions towards death.

There was no hope for him this time: it was the third stroke. Night after night I had passed the house (it was vacation time) and studied the lighted square of window: and night after night I had found it lighted in the same way, faintly and evenly. If he was dead, I thought, I would see the reflection of candles on the darkened blind for I knew that two candles must be set at the head of a corpse. He had often said to me: “I am not long for this world,” and I had thought his words idle. Now I knew they were true.

6

Mark for Review

Which choice best states the main purpose of the text?

- (A) To express the protagonist's denial and eventual acceptance of a friend's impending death.
- (B) To illustrate the protagonist's nightly ritual of passing by the dying man's house.
- (C) To underscore the protagonist's fascination with the symbolism of candles in death rituals.
- (D) To highlight the morbid conversations between the protagonist and the dying man.

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## Section 1, Module 2: Reading &amp; Writing



Annotate



During the Industrial Revolution, which began in the late 18th century, significant technological advancements transformed the manufacturing and production industries. Factories emerged as a result of these advancements, replacing small-scale, home-based industries. One such invention, the spinning jenny, was developed by English inventor James Hargreaves in 1764. This machine revolutionized the textile industry by allowing workers to spin multiple threads simultaneously, increasing productivity and lowering costs. As a result, the textile industry shifted from a predominantly domestic enterprise to a factory-based system, leading to urbanization and the growth of cities.

7

Mark for Review

According to the text, what was the primary impact of the spinning jenny on the textile industry?

- (A) The spinning jenny made textile production more labor-intensive
- (B) It facilitated the transition from home-based industries to factory-based systems
- (C) The spinning jenny led to a decline in textile production
- (D) It caused textile prices to skyrocket due to increased demand

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## Section 1, Module 2: Reading &amp; Writing



Annotate



The following text is from Nathaniel Hawthorne's 1852 novel *The Blithedale Romance*. Zenobia is a character who is noted for her commanding presence.

Zenobia was truly a magnificent woman. The homely simplicity of her dress could not conceal, nor scarcely diminish, the queenliness of her presence. The image of her form and face should have been multiplied all over the earth. It was wronging the rest of mankind to retain her as the spectacle of only a few. The stage would have been her proper sphere. She should have made it a point of duty, moreover, to sit endlessly to painters and sculptors, and preferably to the latter; because the cold decorum of the marble would consist with the utmost scantiness of drapery, so that the eye might chastely be gladdened with her material perfection in its entirety.

8

Mark for Review

According to the text, what is true about Zenobia?

- (A) Zenobia often tries to conceal her beauty with her simple dress, but fails to do so.
- (B) Zenobia can be overly conscious about her appearance.
- (C) Zenobia believes that only a few deserving people should behold her beauty.
- (D) Zenobia is remarkably stunning and would be suited to be a model or actress.

Section 1, Module 2: Reading & Writing



"Invictus" is an 1875 poem by William Ernest Henley. In the poem, Henley emphasizes the indomitable spirit of an individual in the face of adversity and expresses gratitude, writing, \_\_\_\_\_

9

Mark for Review

Which quotation from "Invictus" most effectively illustrates the claim?

- (A) "Out of the night that covers me, / Black as the pit from pole to pole, / I thank whatever gods may be / For my unconquerable soul."
- (B) "In the fell clutch of circumstance / I have not winced nor cried aloud. / Under the bludgeonings of chance / My head is bloody, but unbowed."
- (C) "Beyond this place of wrath and tears / Looms but the Horror of the shade, / And yet the menace of the years / Finds and shall find me unafraid."
- (D) "It matters not how strait the gate, / How charged with punishments the scroll, / I am the master of my fate, / I am the captain of my soul."

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Section 1, Module 2: Reading & Writing



Energy Consumption and Renewable Energy Share in Five Countries

City	Gini Coefficient	Crime Rate (per 1,000 residents)
City 1	0.35	25
City 2	0.40	35
City 3	0.45	39
City 4	0.50	42
City 5	0.55	43

The table presents data on income inequality, measured by the Gini coefficient, and crime rates in five cities. The Gini coefficient ranges from 0 (perfect equality) to 1 (perfect inequality), while the crime rate represents the number of crimes per 1,000 residents. Researchers claim that cities with higher income inequality tend to have higher crime rates, but that the increase in this crime rate diminishes as the gini coefficient increases, a classic diminishing returns phenomenon.

10

Mark for Review

Which choice best describes data from the table that support the researchers' claim?

- (A) City 1 has the lowest Gini coefficient and the lowest crime rate.
- (B) City 2 has a lower Gini coefficient and a lower crime rate than City 3.
- (C) City 5's crime rate only marginally increased compared to City 4.
- (D) City 2's crime rate only marginally increased compared to City 1.

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## Section 1, Module 2: Reading &amp; Writing



Madagascar, an island nation with a plethora of unique flora, is home to the critically endangered plant species, Madagascan periwinkle (*Catharanthus roseus*). This enigmatic plant is renowned for its medicinal properties, as it produces alkaloids that are utilized in the treatment of various cancers. Some botanists have posited that this plant is endemic to very specific environmental conditions, citing evidence of its limited distribution across the island and its proclivity for growing in well-drained soils with ample sunlight. They argue that these stringent requirements have contributed to the plant's vulnerability and precarious conservation status. However, the Madagascan periwinkle has also demonstrated adaptability, as it has been successfully cultivated in various countries for its medicinal applications.

11

Mark for Review

Which finding, if true, would most directly weaken the botanists' claim regarding the Madagascan periwinkle's specific environmental requirements?

- A Evidence emerges that the Madagascan periwinkle can thrive in a variety of environmental conditions, both in the wild and in cultivation, without compromising its medicinal properties.
- B A new population of Madagascan periwinkle is discovered in a microhabitat with slightly different environmental conditions than those of previously known populations.
- C The Madagascan periwinkle exhibits a proclivity for propagating through both sexual and asexual reproduction.
- D The method for determining the environmental requirements of the Madagascan periwinkle is discovered to be less effective when used to analyze other endemic plant species in Madagascar.

## Section 1, Module 2: Reading &amp; Writing



The RNA world hypothesis posits that RNA molecules, capable of both storing genetic information and catalyzing chemical reactions, played a central role in the early stages of life on Earth. A biochemist claims that RNA molecules could have acted as a precursor to both DNA and proteins in the development of life.

12

Mark for Review

Which finding, if true, would most directly support the biochemist's claim?

- A RNA is composed of nucleotides, the building blocks of genetic material, and can form complex three-dimensional structures.
- B The discovery of ribozymes, RNA molecules with catalytic activity, supports the idea that RNA can perform functions typically associated with proteins.
- C Both DNA and RNA use a similar language of four nucleotide bases to store genetic information, although RNA uses uracil instead of thymine.
- D The central dogma of molecular biology describes the flow of genetic information from DNA to RNA to protein.

## Section 1, Module 2: Reading &amp; Writing



The hukou system is a household registration policy in China that was initially implemented in the late 1950s as a means of controlling the population's movement between rural and urban areas. The system has been criticized for creating a socioeconomic divide by limiting access to social services, such as healthcare and education, for those with a rural hukou. In recent years, the Chinese government has introduced reforms aimed at reducing the disparities caused by the hukou system. If these reforms were successful in addressing the negative consequences of the hukou system, they would likely \_\_\_\_.

13

Mark for Review

Which choice most logically completes the text?

- (A) exacerbate the rural-urban divide by further restricting access to public services.
- (B) remedy the inequalities faced by rural hukou holders in accessing social benefits.
- (C) perpetuate the existing system without making any significant changes.
- (D) nullify the original intent of the hukou system and increase internal migration.

## Section 1, Module 2: Reading &amp; Writing



The intricate cave systems of the Yucatan Peninsula in Mexico are home to a unique and diverse array of aquatic life, including various species of blind cavefish. These fish have adapted to their dark environment by losing their eyes and developing enhanced sensory systems, such as the lateral line system, which enables them to detect changes in water pressure and navigate their surroundings. Additionally, these fish exhibit traits like reduced pigmentation, slower metabolic rates, and the ability to tolerate low oxygen levels. Some researchers speculate that these adaptations may have arisen through a process known as regressive evolution, in which the loss or reduction of certain traits becomes advantageous in specific environments. With this in mind, the blind cavefish's unique adaptations \_\_\_\_.

14

Mark for Review

Which choice most logically completes the text?

- (A) indicate that the cave environment is not as harsh as previously thought.
- (B) suggest that the loss of eyesight in these species was detrimental to their survival.
- (C) provide evidence of how organisms can adapt to extreme environmental conditions.
- (D) imply that these fish are likely to regain their eyesight if introduced to well-lit environments.

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## Section 1, Module 2: Reading &amp; Writing



The crested ibis (*Nipponia nippon*), once widespread across East Asia, is now primarily found in the Shaanxi province of China. By the late 20th century, habitat destruction and overhunting had driven the species to the brink of extinction. However, concerted conservation efforts, such as captive breeding programs and habitat restoration, have helped revive the crested ibis population in recent years. The successful recovery of the crested ibis in China demonstrates that \_\_\_\_\_.

15

Mark for Review

Which choice most logically completes the text?

(A) the role of human intervention in species decline is often overstated.

(B) conservation efforts are invariably futile in the face of environmental degradation.

(C) concerted and targeted actions can mitigate and potentially reverse the effects of human-induced threats.

(D) species like the crested ibis are impervious to environmental changes on their habitats.



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## Section 1, Module 2: Reading &amp; Writing



The biologist Charles Darwin\_\_\_ theory of evolution by natural selection transformed our understanding of the natural world—spent decades refining his ideas before publishing *On the Origin of Species*. His work laid the foundation for modern evolutionary biology.

16

Mark for Review

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

(A) Darwin,

(B) Darwin—whose

(C) Darwin; whose

(D) Darwin, who's



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## Section 1, Module 2: Reading &amp; Writing



The development of \_\_\_ against infectious diseases by stimulating the immune system, has saved countless lives, eradicated smallpox, and dramatically reduced the incidence of other diseases, such as polio and measles.

17

Mark for Review

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

- (A) vaccines, which protect (A)
- (B) vaccines - protecting (B)
- (C) vaccines protect (C)
- (D) vaccines: which protect (D)

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## Section 1, Module 2: Reading &amp; Writing



The effectiveness of acupuncture in pain relief has been a subject of debate among medical professionals for years. However, after conducting extensive clinical trials and meta-analyses, \_\_\_ that acupuncture can indeed provide significant relief for certain types of pain.

18

Mark for Review

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

- (A) researcher Andrew Vicker's study concludes (A)
- (B) researcher Andrew Vickers has found (B)
- (C) the study of researcher Andrew Vickers suggests (C)
- (D) finding, researcher Andrew Vickers concludes (D)

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## Section 1, Module 2: Reading &amp; Writing



Living under constant fear and manipulation, the citizens struggled to discern truth from propaganda; according to the renowned author George Orwell in his book *1984*, the government's \_\_\_\_ is Peace. Freedom is Slavery. Ignorance is Strength."

19

Mark for Review

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

- (A) slogan was: "War"
- (B) slogan was "War"
- (C) slogan was, "War"
- (D) slogan was; "War"

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## Section 1, Module 2: Reading &amp; Writing



In evaluating the novels of British author Virginia Woolf, \_\_\_\_ have overlooked her subtle references to Greek mythology that enrich the depth of her stories.

20

Mark for Review

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

- (A) numerous scholars have concentrated on Woolf's innovative narrative techniques but
- (B) Woolf's innovative narrative techniques have been the focus of numerous scholars, who
- (C) there are numerous scholars who have concentrated on Woolf's innovative narrative techniques, but they
- (D) the focus of numerous scholars has been on Woolf's innovative narrative techniques; they

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## Section 1, Module 2: Reading &amp; Writing



To protect themselves from predators, some species of cuttlefish \_\_\_\_ an impressive ability to change their color and texture. This natural camouflage allows them to blend seamlessly with their surroundings, making it difficult for predators to detect them.

21

Mark for Review

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

- (A) posses  (A)
- (B) to possess  (B)
- (C) having possessed  (C)
- (D) possessing  (D)

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## Section 1, Module 2: Reading &amp; Writing



After winning the lottery and using the money to help his community, he referred to it as "the best day of his \_\_\_\_ little did he know what was to come.

22

Mark for Review

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

- (A) life" -  (A)
- (B) life";  (B)
- (C) life."  (C)
- (D) life"  (D)

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## Section 1, Module 2: Reading &amp; Writing



Annotate



William Shakespeare, often regarded as the greatest playwright in the English language, authored numerous plays and sonnets. His works explore a wide range of themes, from love and betrayal to ambition and power. \_\_\_\_\_, his plays have been translated into every major living language and continue to be performed worldwide.

23

Mark for Review

Which choice completes the text with the most logical transition?

 (A) For example,

 (B) However,

 (C) Accordingly,

 (D) In fact,


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## Section 1, Module 2: Reading &amp; Writing



Annotate



The Eurasian lynx, a solitary and enigmatic wildcat native to the dense, sprawling forests of Europe, is endowed with impressive agility and stealth, attributes it harnesses to master the art of ambush predation. When silently prowling through the underbrush in search of prey, this adept hunter utilizes its acute senses of hearing and sight to pinpoint the location of unsuspecting quarry, typically consisting of small to medium-sized mammals. \_\_\_\_\_ when the mating season arrives, shattering the wintry stillness, these ordinarily reticent predators undergo a marked transformation as they employ an assortment of calls, ranging from growls to yowls, in an effort to communicate with potential mates across the forest.

24

Mark for Review

Which choice completes the text with the most logical transition?

 (A) Analogously,

 (B) For example,

 (C) However,

 (D) Moreover,


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## Section 1, Module 2: Reading &amp; Writing



The invention of the telephone by Alexander Graham Bell in 1876 revolutionized communication, allowing people to converse across great distances. Over time, the technology has evolved from wired devices to wireless cellular phones. \_\_\_\_\_, the advent of smartphones has further transformed the way we communicate and access information.

25

Mark for Review

Which choice completes the text with the most logical transition?

- (A) Therefore,
- (B) In comparison,
- (C) Moreover,
- (D) Conversely,

Back Next

## Section 1, Module 2: Reading &amp; Writing



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

- Maslow's hierarchy of needs is a motivational theory in psychology.
- The hierarchy is often represented as a pyramid with five levels.
- The levels are, from the bottom to the top: physiological needs, safety needs, love and belonging needs, esteem needs, and self-actualization needs.
- According to Maslow, individuals must fulfill lower-level needs before focusing on higher-level needs.

26

Mark for Review

The student wants to explain the structure of Maslow's hierarchy of needs. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- (A) Maslow's hierarchy of needs is structured as a five-level pyramid, with physiological needs at the base, followed by safety, love and belonging, esteem, and self-actualization needs at the top.
- (B) As a motivational theory in psychology, Maslow's hierarchy of needs emphasizes the importance of fulfilling basic needs before pursuing higher-level psychological and self-actualization needs.
- (C) Maslow's hierarchy of needs represents the different levels of human motivation, with the bottom levels focused on basic survival and the top levels aimed at personal growth and fulfillment.
- (D) According to Maslow, the hierarchy of needs progresses from physiological needs to self-actualization needs, with each level building upon the fulfillment of the previous level's needs.

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## Section 1, Module 2: Reading &amp; Writing



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

- The “Stolen Generations” refers to Aboriginal children who were forcibly removed from their families by Australian government policies between 1910 and 1970.
- The policies were justified by a belief in the assimilation of these children into white society.
- It is estimated that between one in ten and one in three indigenous Australian children were taken from their families during this period.
- The impacts of these policies include a loss of cultural identity and psychological effects.

27

Mark for Review

The student wants to emphasize the impact of these policies on Aboriginal communities. Which choice most effectively uses relevant information from the notes to accomplish this goal?

A The Australian government’s policies forcibly removed Aboriginal children from their families, causing a loss of cultural identity and psychological effects.

B The “Stolen Generations” policies aimed at assimilating Aboriginal children into white society, resulting in the loss of cultural identity for many.

C Between 1910 and 1970, Australian government policies resulted in between one in ten and one in three indigenous children being taken from their families.

D The Australian government justified the “Stolen Generations” policies with a belief in the assimilation of these children into white society.

Question 27 of 27 &gt;

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35:00

Section 2, Module 1: Math



Annotate

1

Mark for Review

If  $4x + y = 10$ , what is the value of  $16x + 4y$ ?

 (A) 10

 (A)

 (B) 20

 (B)

 (C) 40

 (C)

 (D) 80

 (D)

Section 2, Module 1: Math



Annotate

2

Mark for Review

Shakil intends to buy a \$98 calculator and  $p$  pencils that cost \$2 each. He has a maximum of \$110 budget for his purchase. Which of the following inequalities best represents this situation?

 (A)  $98 + 2p \leq 110$ 
 (A)

 (B)  $2 + 98p \leq 110$ 
 (B)

 (C)  $2p \leq 98$ 
 (C)

 (D)  $110 + 2p \leq 98$ 
 (D)

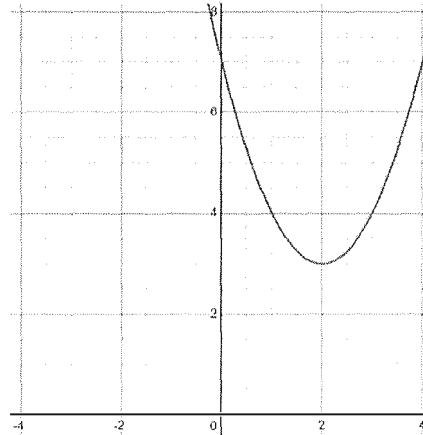
Section 2, Module 1: Math



Annotate

3

Mark for Review



The graph of  $y = f(x)$  is shown. What is the  $y$ -intercept of the graph?

 (A) 2

 (A)

 (B) 7

 (B)

 (C) 12

 (C)

 (D) 17

 (D)

2

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Section 2, Module 1: Math



4

Mark for Review

$PQ = 15$

$QR = 12$

$RP = 9$

The side lengths of a right triangle  $PQR$  is given.  
What is the value of angle  $R$ , in degrees?

Section 2, Module 1: Math



6

Mark for Review

The equation  $y = x - 8$  defines the relation  
between  $x$  and  $y$ . What is the  $x$  value when  $y = 1$ ?

(A) 7

(B) 9

(C) -1

(D) -9

Section 2, Module 1: Math



5

Mark for Review

Function  $g$  is defined by  $g(x) = \frac{1}{2}(x - 3)^2 + 1$ .

The graph of  $h(x)$  is generated by shifting the  
graph of  $g(x)$  on the  $xy$ -plane by 3 units to the  
negative  $x$  direction. Which equation correctly  
defines  $h(x)$ ?

(A)  $h(x) = \frac{1}{2}(x^2 + 3)$

(B)  $h(x) = \frac{1}{2}x^2 + 3$

(C)  $h(x) = \frac{1}{2}x^2 + 1$

(D)  $h(x) = \frac{1}{2-3}(x^2 - 3)$



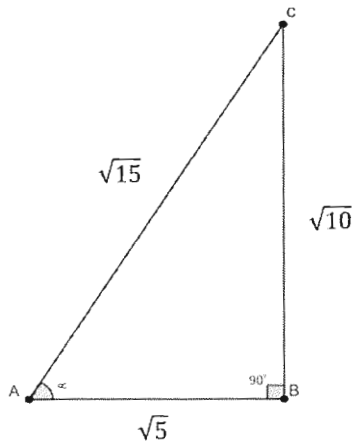
## Section 2, Module 1: Math



Annotate

7

Mark for Review



A right triangle  $ABC$  is shown, where  $\alpha$  represents the value of angle  $A$ . What is the value of  $\cos \alpha$ ?

- (A)  $\sqrt{5}$  (A)
- (B)  $\frac{\sqrt{5}}{\sqrt{15}}$  (B)
- (C)  $\sqrt{15}$  (C)
- (D)  $\frac{\sqrt{15}}{\sqrt{5}}$  (D)

TESTSQUIBE

## Section 2, Module 1: Math



Annotate

8

Mark for Review

Standard English set of alphabets consists of 26 unique letters, where exactly 5 of them (a, e, i, o, u) are vowels. What is the probability of a randomly chosen Standard English letter is not a vowel?

- (A)  $\frac{6}{26}$  (A)
- (B)  $\frac{11}{26}$  (B)
- (C)  $\frac{16}{26}$  (C)
- (D)  $\frac{21}{26}$  (D)

TESTSQUIBE

Question 8 of 22 &gt;

## Section 2, Module 1: Math



Annotate

9

Mark for Review

Quadratic equation  $x^2 - x + c = 0$  has two distinct real solutions when a constant real number  $c$  is less than  $k$ . What is the maximum value of  $k$ ?

- (A) 16 (A)
- (B) 4 (B)
- (C)  $\frac{1}{2}$  (C)
- (D)  $\frac{1}{4}$  (D)

Section 2, Module 1: Math



10

Mark for Review

Aniya found that out of 25 students in her class, there were twice as many students who had cats,  $c$ , as there were those who had dogs,  $d$ . There were no students who had both cats or dogs.  $s$  students, however, had neither cats nor dogs. Which set of expressions best describes this context?

(A)  $\begin{cases} s = 25 - d \\ s + d = c \end{cases}$

(B)  $\begin{cases} s + d - c = 25 \\ d + 25 = c \end{cases}$

(C)  $\begin{cases} c = 2d \\ s = 25 - (c + d) \end{cases}$

(D)  $\begin{cases} c = 2d \\ s = 25 + (c + d) \end{cases}$

Section 2, Module 1: Math



11

Mark for Review

$A(x)$  is defined as  $A(x) = |x| - 4$ . At how many different points do the graph of  $A(x)$  and the  $x$ -axis intersect?

(A) 2

(B) 1

(C) 0

(D) Infinitely many

Section 2, Module 1: Math



12

Mark for Review

$L(x) = 130,000(1.1)^x$   
 $L(x)$  represents the total number of tree leaves in a certain area of forest on every July 15th,  $x$  years after 2020. How many more tree leaves does the area contain on July 15th, 2021, when compared to July 15th, 2020?

(A) 1,300

(B) 13,000

(C) 15,730

(D) 26,000

2

Module  
1

2

Section 2, Module 1: Math



Annotate



13

Mark for Review

In an isosceles triangle  $DEF$ , both the values of angle  $E$  and angle  $F$  are 30 degrees. What is the value of angle  $D$  in radians?

- (A)  $\frac{\pi}{2}$
- (B)  $\frac{\pi}{3}$
- (C)  $\frac{2\pi}{3}$
- (D)  $\pi$



Section 2, Module 1: Math



Annotate



14

Mark for Review

$P(1, 17), Q(3, 29)$

What is the slope of a linear function whose graph passes both points  $P$  and  $Q$ ?

Section 2, Module 1: Math



Annotate



15

Mark for Review

$f(x)$  is defined by  $f(x) = x(x - 2)(x - 11)^2$ .  
How many different  $x$ -intercepts does the graph of  $f(x)$  have?

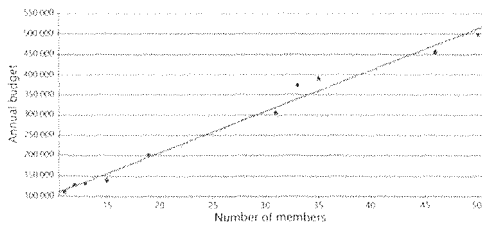
- (A) 3
- (B) 4
- (C) 5
- (D) 6

Section 2, Module 1: Math



16

Mark for Review



Cathay conducted research on the number of member and budget of 10 senior daycare centers in her city. The scatterplot shows the relationship between the annual budget and the number of numbers enrolled in each daycare center. Which of the choices best describes the meaning of the slope of the linear model. 10,200, in this context.

(A) An additional member in a daycare center takes 10,200 dollars more annual budget on average.

(B) Cathay researched 10,200 daycare centers.

(C) The average annual budget of 10 daycare centers is 10,200 dollars.

(D) The minimum of the annual budget of 10 daycare centers is 10,200 dollars.

Section 2, Module 1: Math



17

Mark for Review

What is an equivalent form of  $3x^3y^{12} + 6x^3$ ?

(A)  $3x(x^{12} + 2)$

(B)  $3x^3(y^{12} + 2)$

(C)  $3x^3(y^6 + 2)$

(D)  $3x(y^{12} + 2)$

Section 2, Module 1: Math



18

Mark for Review

A state imposes a 6% sales tax for each purchase in the state. How much in total should a person pay, in dollars including sales tax, when he/she purchases 3 desks, each costing 200 dollars, before the purchase tax in the state?

(A) 606

(B) 616

(C) 626

(D) 636

Section 2, Module 1: Math



19

Mark for Review

A car of a certain model loses its fuel mileage as the car engine gets old.  $F(y) = 20(0.95)^y$  models the fuel mileage of the car, in miles per gallon,  $y$  years after purchase. Which of the choices is closest to the maximum distance, in miles, a car can travel with 50 gallons of fuel at the moment of 2 years after purchase?

- (A) 25
- (B) 350
- (C) 900
- (D) 2,750

Section 2, Module 1: Math



20

Mark for Review

Data set	A	B
Values	105, 107, 109, 115, 116	101, 103, 105, 110, 111, 112, $x$

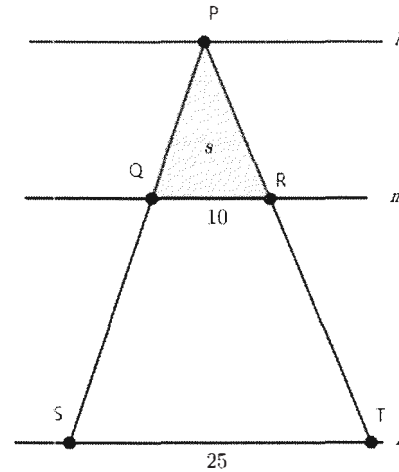
Data sets A and B contain 5 and 7 values, respectively, as shown above. The median of the values in data set A and B are the same. What is the value of  $x$ ?

Section 2, Module 1: Math



21

Mark for Review



In a diagram above, lines  $l$ ,  $m$ , and  $n$  are parallel to each other. The length of  $QR$  equals 10 units, and the length of  $ST$  equals 25 units. The area of triangle  $PQR$  is  $s$ . Which of the following expression equals the area of triangle  $PST$ ?

- (A)  $4s$
- (B)  $\frac{25}{4}s$
- (C)  $9s$
- (D)  $\frac{49}{7}s$

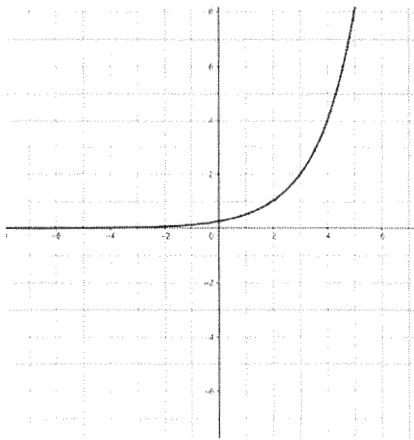
## Section 2, Module 1: Math



Annotate

22

Mark for Review



The graph of  $g(x) = 2^{x-2}$  is shown. Which of the following interprets the relationship between  $g(t)$  and  $g(t + 3)$ , when  $t$  is a constant?

- (A)  $g(t) + 6 = g(t + 3)$
- (B)  $g(t)^3 = g(t + 3)$
- (C)  $g(3t) = g(t + 3)$
- (D)  $2^3 g(t) = g(t + 3)$

2

Module  
2

2

35:00

Section 2, Module 2: Math



1

Mark for Review

What is 18% of 400?

Section 2, Module 2: Math



3

Mark for Review

$$x - 2y = 11$$

$$2y = 15$$

The solution for the given system of equations is  $(x, y)$ . What is  $xy$ ?

- (A) 15
- (B) 97.5
- (C) 150
- (D) 195

Section 2, Module 2: Math



2

Mark for Review

Ben is planning to print 110 pages of documents at a print shop.  $c$  pages should be printed in color, and the rest should be printed in grayscale. The print shop charges 1.5 dollars for printing a colored page, and 0.5 dollars for printing a grayscale page. Which expression best describes the total price of Ben's printing, in dollars?

- (A)  $1.5c + 0.5(110 - c)$
- (B)  $1.5c - 0.5(110 + c)$
- (C)  $0.5c + 1.5(110 - c)$
- (D)  $0.5c + 1.5(110 + c)$

2

Module  
2

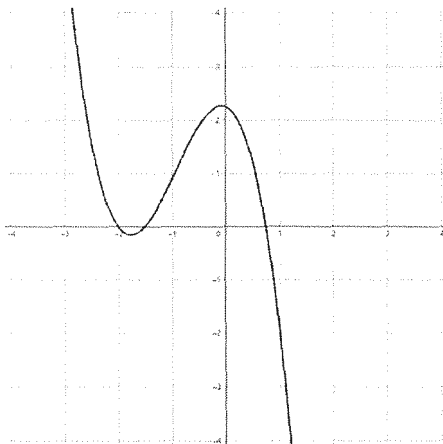
2

Section 2, Module 2: Math



4

Mark for Review



The graph of  $y = f(x)$  is shown above. How many distinct real solutions does  $f(x) = 0$  have?

- (A) 0
- (B) 1
- (C) 2
- (D) 3

Section 2, Module 2: Math



5

Mark for Review

Oliver spent 29.6 dollars when he purchased 8 bottles of orange and prune juice at a grocery store. The price of orange juice and prune juice are 3.40 and 4.00 dollars per bottle, respectively. What is the number of bottles of orange juice Oliver bought?

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

Section 2, Module 2: Math



6

Mark for Review

Which is an equivalent form of  $15x(xy)^3$ ?

- (A)  $15x^4y^3$
- (B)  $15x^2y$
- (C)  $15xy^3$
- (D)  $15y(xy)^3$



Section 2, Module 2: Math



7

Mark for Review

The daily revenue of a movie theater is directly proportional to  $t$ , the number of tickets sold. If the theater's revenue on a certain day was  $7.95t$  dollars, which of the choices best suggests the meaning of the number 7.95 in this context?

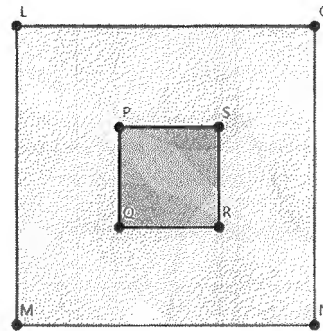
- (A) The number of tickets sold on that day
- (B) The annual average revenue of the movie theater
- (C) The number of movies showing at the theater
- (D) The price per ticket

Section 2, Module 2: Math



8

Mark for Review



A square-bottomed monument is surrounded by a holed-square-shaped plaza with three times longer side lengths. The area of the plaza excluding the bottom of the monument is 720 square feet. What is the area of the bottom of the monument in square feet?

- (A) 40
- (B) 90
- (C) 240
- (D) 270

2

Module  
2

2

Section 2, Module 2: Math



9

Mark for Review

Each side of a fair 12-sided die has a unique integer between  $-6$  and  $5$ . What is the probability of rolling a positive integer when the die is rolled once?

- (A)  $\frac{1}{12}$
- (B)  $\frac{2}{12}$
- (C)  $\frac{5}{12}$
- (D)  $\frac{6}{12}$

Section 2, Module 2: Math



11

Mark for Review

A turtle spends 75% of its lifetime in the water. If the turtle lived 80 years, how many years did it spend in the water?

- (A) 20
- (B) 60
- (C) 75
- (D) 80

Section 2, Module 2: Math



10

Mark for Review

The speed of a broken probe satellite,  $S(x)$ , is 10% faster every day after the breakage. If  $x$  represents the days past the date of the breakage, which choice best models  $S(x)$  if the speed of the satellite was initially 1,500 km/h?

- (A)  $S(x) = 1,500(1.1)x$
- (B)  $S(x) = 1,500(1.1)^x$
- (C)  $S(x) = 1,500x^{1.1}$
- (D)  $S(x) = 1,500^{1.1}x$

Section 2, Module 2: Math



12

Mark for Review

$$y^2 = xy$$

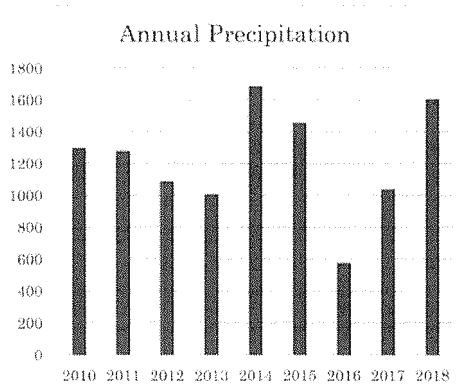
If  $(x = b, y = 11)$  is one of the solutions for the given equation, what is the value of  $b$ ?

Section 2, Module 2: Math



13

Mark for Review



The chart shows the recorded annual precipitation of a certain city, in millimeters per year. From 2010 to 2018, in which year the city experienced the least rainfall?

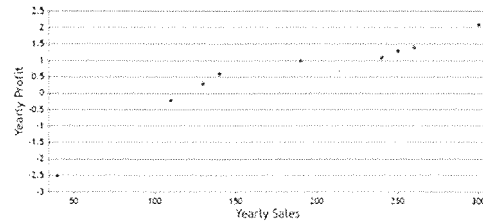
- (A) 2012
- (B) 2014
- (C) 2016
- (D) 2018

Section 2, Module 2: Math



14

Mark for Review



The scatterplot is generated by analyzing a company's total sales, in thousand products, and the net profit, in million dollars, for each fiscal year over a nine-year period. A linear function  $y = f(x)$  models the data where  $x$  and  $y$  represent the sales and profit, respectively. Which of the following descriptions of  $f(x)$  is true?

- (A) Both the slope and the y-intercept are positive.
- (B) The slope is positive and the y-intercept is negative.
- (C) The slope is negative and the y-intercept is positive.
- (D) Both the slope and the y-intercept are negative.

Section 2, Module 2: Math



15

Mark for Review

Last winter, Alexia visited a ski resort  $x$  times to take ski lessons. At every visit, she paid  $l$  dollars to take a lesson. In addition, she paid  $m$  dollars registration for/of registration fee on her first visit. What is the average payment, in dollars, that Alexia made to the ski resort last winter per visit?

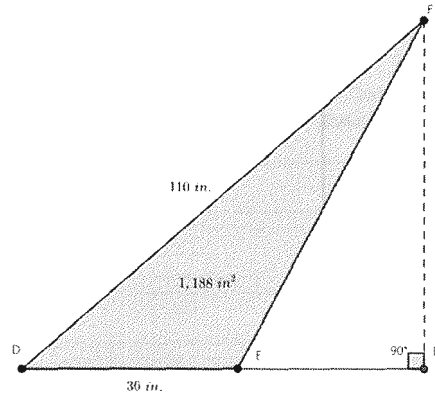
- (A)  $\frac{m+x}{l}$
- (B)  $\frac{m-x}{l}$
- (C)  $\frac{m+lx}{x}$
- (D)  $\frac{m+l}{mx}$

Section 2, Module 2: Math



17

Mark for Review



In a scalene triangle  $DEF$ , the longest side length  $DF$  equals 110 inches.  $DE$  equals 36 inches and the area of  $DEF$  equals 1,188 square inches. What is the value of  $\sin D$ ?

- (A)  $\frac{36}{110}$
- (B)  $\frac{110}{1188}$
- (C)  $\frac{66}{1188}$
- (D)  $\frac{66}{110}$

Section 2, Module 2: Math



16

Mark for Review

The carbon footprint of a product is defined as the volume of total carbon dioxide emitted to make, process, and ship the product. 1kg of beef is proven to have 83 cubic meters of carbon footprint. Assuming that 1 meter is equivalent to 3.3 feet, which of the following values is closest to the carbon footprint in cubic feet that 1kg of beef has?

- (A) 36
- (B) 280
- (C) 900
- (D) 3,000

2

Module  
2

2

Section 2, Module 2: Math



18

Mark for Review

$$\begin{cases} y = x^2 + 2x + 1 \\ y = -4 \end{cases}$$

How many sets of real solutions does the given set of equations have?

- (A) 0
- (B) 1
- (C) 2
- (D) Infinitely many

Section 2, Module 2: Math



20

Mark for Review

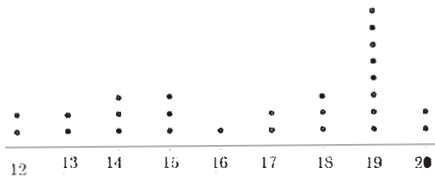
What is the value of  $\sqrt{x^2 + 3} + 3$  when  $x = -1$ ?

Section 2, Module 2: Math



19

Mark for Review



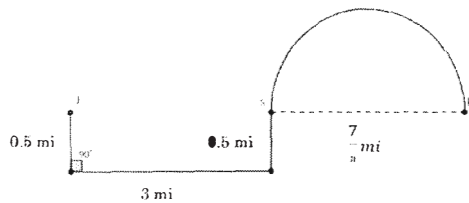
The given dot plot shows the distribution of test scores, out of 20, of 26 students in Hannah's class. What is the mode of the scores of Hannah's classmates?

Section 2, Module 2: Math



21

Mark for Review



Josh and Kimberly left their respective home at the same time for school S. From Josh's home, J, he drove 0.5 miles south, turned 90 degrees left, drove 3 miles, turned 90 degrees left, and drove 0.5 miles. From Kimberly's home, K, she drove along a semicircular road with a diameter of  $\frac{7}{\pi}$  miles. Assuming that the average driving speeds of Josh and Kimberly are the same, who arrived at the school first?

- (A) Josh  (A)
- (B) Kimberly  (B)
- (C) Both arrived at the same time.  (C)
- (D) There is not enough information provided.  (D)

Section 2, Module 2: Math



22

Mark for Review

$g(x)$  is defined as the largest possible integer that is less than or equal to  $x$ . A page of a certain academic paper contains 240 words at maximum. Which choice does the most appropriately represent the minimum number of pages of the academic paper that contains 1890 words?

- (A)  $g(1890)$   (A)
- (B)  $g(240)$   (B)
- (C)  $g\left(\frac{240}{1890}\right) + 1$   (C)
- (D)  $g\left(\frac{1890}{240}\right) + 1$   (D)