

#1

ID: 75e07a4d

Sample of Food Items from
Gemini Mission Menus

Food item	Day	Meal
Sugar cookie cubes	1	B
Chicken and vegetables	2	B
Shrimp cocktail	4	C
Hot cocoa	3	A

To make sure they got the nutrition they needed while in space, the astronauts of NASA's Gemini missions were given menus for three meals a day (meals A, B, and C) on a four-day rotating schedule. Looking at the sample of food items from these menus, a student notes that on day 1, the menu included _____

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

- A) shrimp cocktail for meal B.
- B) hot cocoa for meal C.
- C) sugar cookie cubes for meal B.
- D) chicken and vegetables for meal A.

#2

ID: 3091f805

Ochre sea stars live in tidal pools along the shoreline of the Pacific Ocean. At night, they move to higher shore levels in search of prey. But scientists Corey Garza and Carlos Robles noticed that ochre sea stars stayed at lower levels at night after heavy rains. Garza and Robles hypothesized that a layer of fresh water formed by rainfall was a barrier to the sea stars. To test their hypothesis, the scientists did an experiment. They placed some sea stars in a climbable tank of seawater and other sea stars in a similar tank of seawater with a layer of fresh water on top. Then, the scientists watched the sea stars' behavior at night.

Which finding from the experiment, if true, would most directly support Garza and Robles's hypothesis?

- A) None of the sea stars climbed to the tops of the tanks, but sea stars in the tank with only seawater moved around the bottom of the tank more than sea stars in the other tank did.
- B) Sea stars in the tank with only seawater climbed to the top of the tank, but sea stars in the other tank stopped climbing just below the layer of fresh water.
- C) Both groups of sea stars climbed to the tops of the tanks, but sea stars in the tank with only seawater climbed more slowly than sea stars in the other tank did.
- D) Sea stars in the tank with only seawater mostly stayed near the bottom of the tank, but sea stars in the other tank climbed into the layer of fresh water.

O Pioneers! is a 1913 novel by Willa Cather. In the novel, Cather portrays Alexandra Bergson as having a deep emotional connection to her natural surroundings: _____

Which quotation from *O Pioneers!* most effectively illustrates the claim?

- A) “She had never known before how much the country meant to her. The chirping of the insects down in the long grass had been like the sweetest music. She had felt as if her heart were hiding down there, somewhere, with the quail and the plover and all the little wild things that crooned or buzzed in the sun. Under the long shaggy ridges, she felt the future stirring.”
- B) “Alexandra talked to the men about their crops and to the women about their poultry. She spent a whole day with one young farmer who had been away at school, and who was experimenting with a new kind of clover hay. She learned a great deal.”
- C) “Alexandra drove off alone. The rattle of her wagon was lost in the howling of the wind, but her lantern, held firmly between her feet, made a moving point of light along the highway, going deeper and deeper into the dark country.”
- D) “It was Alexandra who read the papers and followed the markets, and who learned by the mistakes of their neighbors. It was Alexandra who could always tell about what it had cost to fatten each steer, and who could guess the weight of a hog before it went on the scales closer than John Bergson [her father] himself.”

#4

ID: 6f626ae5

“To You” is an 1856 poem by Walt Whitman. In the poem, Whitman suggests that readers, whom he addresses directly, have not fully understood themselves, writing, _____

Which quotation from “To You” most effectively illustrates the claim?

- A) “You have not known what you are, you have slumber’d upon yourself / all your life, / Your eyelids have been the same as closed most of the time.”
- B) “These immense meadows, these interminable rivers, you are immense / and interminable as they.”
- C) “I should have made my way straight to you long ago, / I should have blabb’d nothing but you, I should have chanted nothing / but you.”
- D) “I will leave all and come and make the hymns of you, / None has understood you, but I understand you.”

#5

ID: 85439572

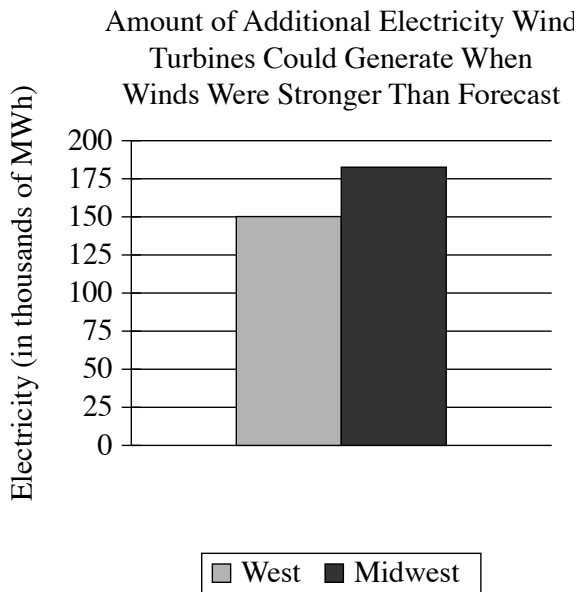
Roasted green chiles are a popular ingredient in Southwestern cuisine, but the traditional roasting method of burning propane is not environmentally friendly. To see if solar power could provide a better alternative, engineer Kenneth Armijo and his team roasted batches of green chiles using between 38 and 42 heliostats, which are devices that concentrate sunlight. The team was successful in reaching the same roasting temperature used in traditional propane roasting, but they found that propane yielded faster results. While the fastest solar-roasted green chiles took six minutes, batches using propane took only four. Armijo hypothesizes that they can reduce the roasting time for solar-roasted green chiles by using more heliostats.

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

- A) The temperature inside the roasting drum is distributed more evenly when roasting green chiles with solar power than with propane.
- B) Attempts to roast green chiles using 50 heliostats yields results in fewer than six minutes.
- C) Green chile connoisseurs prefer the flavor of solar-roasted green chiles over the flavor of propane-roasted green chiles.
- D) The skins of solar-roasted green chiles are easier to peel than the skins of propane-roasted green chiles.

#6

ID: a9040290



Electric companies that use wind turbines rely on weather forecasts to predict the maximum amount of power, in megawatt-hours (MWh), they can generate using wind so that they can determine how much they'll need to generate from other sources. When winds are stronger than they were forecast to be, however, the predicted maximum amount of electricity wind turbines could generate will be too low. For example, the graph shows that for the West region, the winds were _____

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

- A) strong enough to generate about 150 thousand more MWh of electricity from wind turbines.
- B) so weak that the electricity from wind turbines was about 175 thousand MWh less than predicted.
- C) so weak that the electricity from wind turbines was about 150 thousand MWh less than predicted.
- D) strong enough to generate about 175 thousand more MWh of electricity from wind turbines.

#7

ID: f452410b

Results of Footprint Analysis for Two Sets of
Theropod Tracks

Tracks	Estimated footprint length (centimeters)	Average stride length (meters)	Estimated mean speed (meters per second)
La Torre 6A	32.8	5.23	6.5–10.3
La Torre 6B	28.9	5.57	8.8–12.4

The table shows data from paleontologist Angélica Torices and colleagues' 2021 study of two sets of dinosaur tracks preserved in a fossilized lake bed in Spain. The tracks, referred to as La Torre 6A and La Torre 6B, were left by two individual theropods (dinosaurs that walked on two legs). The team's findings suggest that of the two theropods, the one that left the La Torre 6B tracks had a higher maximum mean speed,

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

- A) a longer footprint, and a longer average stride.
- B) a longer footprint, and a shorter average stride.
- C) a shorter footprint, and a longer average stride.
- D) a shorter footprint, and a shorter average stride.

#8

ID: 9debe79a

Average Temperatures in July in Four Locations
in the Navajo Nation

Location	Average highest temperature (Fahrenheit)	Average lowest temperature (Fahrenheit)
Teec Nos Pos	94°	65°
Cameron	99°	65°
Ramah	83°	50°
Tuba City	83°	50°

The Navajo Nation has the largest land area of any tribal nation in the United States: over 27,000 square miles in the Southwest. Because this area is so huge and its communities are located at various elevations, the people of the Navajo Nation can experience different climate conditions depending on where they live. For example, in July, _____

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

- A) the lowest temperature for both Cameron and Teec Nos Pos was 65°.
- B) Tuba City's average highest temperature was 94°, while Teec Nos Pos's was 93°.
- C) Ramah's average highest temperature was 83°, while Cameron's was 99°.
- D) the lowest temperature for both Ramah and Tuba City was 50°.

#9

ID: e7dc27dc

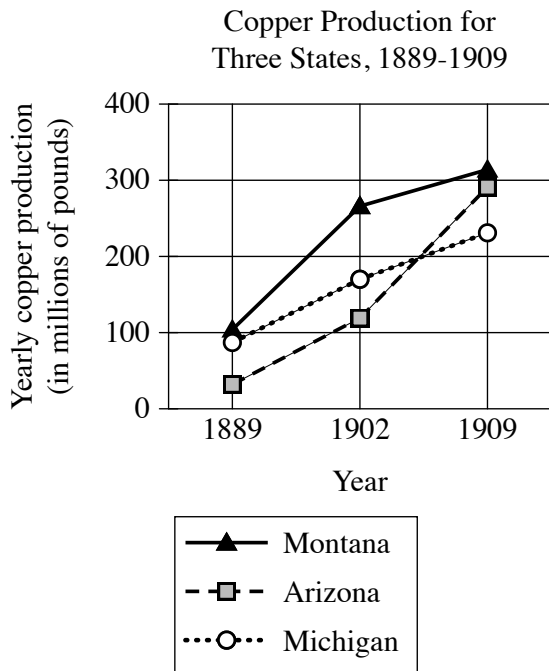
As a monthly newsletter formed in 1969 by a group of Asian American students at the University of California, Los Angeles, *Gidra* helped raise awareness about social and political issues concerning the Asian American community on campus and at large. The newsletter had an expansive reach for a publication of its kind: around 4,000 copies were published each month. A student writing a history paper, however, hypothesizes that *Gidra*'s influence cannot be measured by the number of newsletters published monthly alone.

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

- A) The students who initially formed *Gidra* each contributed financially to its creation.
- B) In addition to covering current events, *Gidra* also featured works of art and literature.
- C) *Gidra* was initially based out of the Asian American Studies Center at UCLA.
- D) People would often give their copies of *Gidra* to others once they had finished reading an issue.

#10

ID: 30c3aa98



Copper had been mined in the US for thousands of years, but large-scale commercial mining of copper took off starting in the late 1800s. This was due to several factors. Technological advancements in the mining industry led to improvements in the production of copper. This helped the country keep up with the growing number of people wanting to buy copper starting in the 1890s. At the same time, the growth of the railroad system made the transportation of copper in large batches much easier. Several states saw rapid growth in the production of this resource, for example: _____

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

- A) The rise in copper production in Michigan slowed from 1902 to 1909.
- B) Montana and Arizona produced more copper than Michigan did in 1909.
- C) Fewer than 100 million pounds of copper were produced in Arizona in 1889.
- D) Copper production rose significantly from 1889 to 1909 for Arizona, Michigan, and Montana.

#11

ID: 4042ff0b

Comfort Ratings and Temperature-Adjustment
Preferences from One Survey

Participant	Comfort rating	Preferred temperature adjustment
20	-2	Cooler
1	1	Cooler
21	1	Cooler

Nan Gao and her team conducted multiple surveys to determine participants' levels of comfort in a room where the temperature was regulated by a commercial climate control system. Participants filled out surveys several times a day to indicate their level of comfort on a scale from -3 (very cold) to +3 (very hot), with 0 indicating neutral (neither warm nor cool), and to indicate how they would prefer the temperature to be adjusted. The table shows three participants' responses in one of the surveys. According to the table, all three participants wanted the room to be cooler, _____

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

- A) and they each reported the same level of comfort.
- B) even though each participant's ratings varied throughout the day.
- C) but participant 20 reported feeling significantly colder than the other two participants did.
- D) but participant 1 reported feeling warmer than the other two participants did.

#12

ID: 5f6adeee

Biologists have generally believed that the diet of jaguars consists mostly of land-based mammals, but researchers studying a population of jaguars living in the Brazilian Pantanal, a tropical wetland, claim that jaguars can survive on a diet of more fish and aquatic reptiles than mammals.

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

- A) Aquatic reptile and fish remains were detected more often than were mammal remains in an analysis of jaguar waste matter found in the area.
- B) Exceptionally high numbers of yacare caiman, an aquatic reptile, were found living in the area.
- C) Aquatic prey like the reptiles and fish in the area provide a source of omega-3 fatty acids that aren't often found in land mammals.
- D) When jaguars in the area preyed on mammals, they tended to prefer semiaquatic ones like capybaras.

#13

ID: 40578580

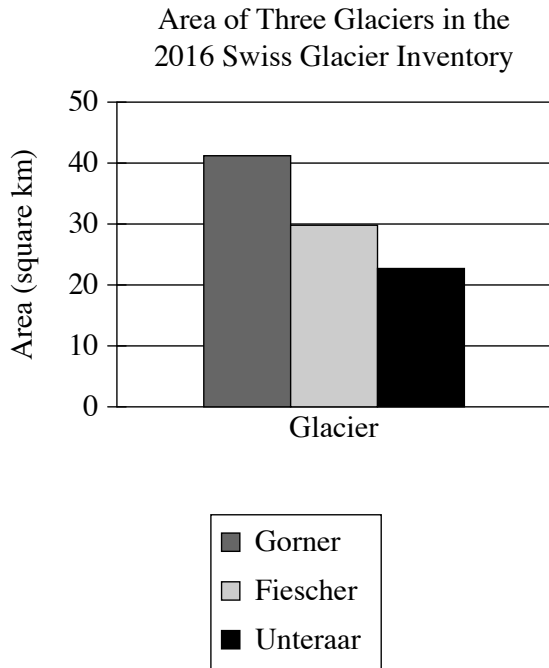
Many scientists have believed that giraffes are solitary creatures, preferring to spend their time alone instead of with others. But observations of giraffes and their behavior in recent years has suggested that these animals may be more social than we once thought. For example, scientists Zoe Muller and Stephen Harris claim that giraffes may even help each other care for one another's newborns.

Which finding, if true, would most directly support Muller and Harris's conclusion?

- A) Female giraffes have been observed feeding young giraffes that aren't their direct offspring.
- B) Confrontations between a younger and an older male giraffe are frequently observed.
- C) Some female giraffes have been observed sniffing and licking their newborn offspring.
- D) Giraffes are able to make sounds but are rarely observed communicating with others.

#14

ID: a9ac31e4



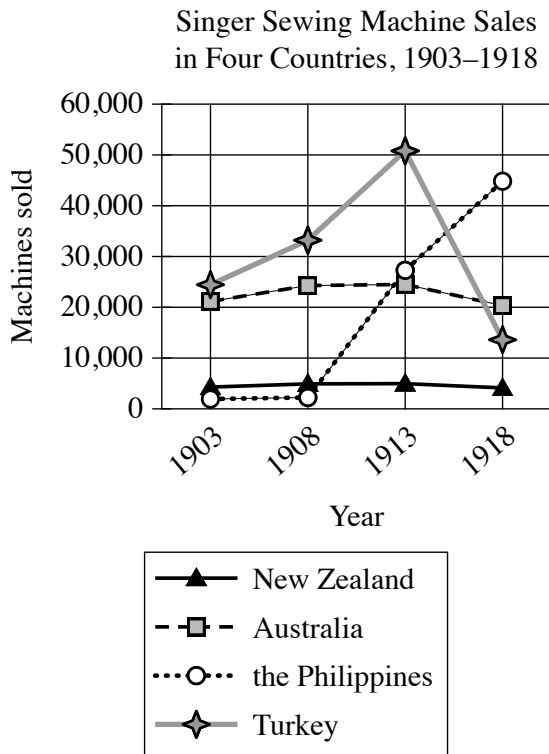
To monitor changes to glaciers in Switzerland, the government periodically measures them for features like total area of ice and mean ice thickness, which are then reported in the Swiss Glacier Inventory. These measurements can be used to compare the glaciers. For example, the Gornier glacier had _____

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

- A) a larger area than either the Fiescher glacier or the Unteraar glacier.
- B) a smaller area than the Fiescher glacier but a larger area than the Unteraar glacier.
- C) a smaller area than either the Fiescher glacier or the Unteraar glacier.
- D) a larger area than the Fiescher glacier but a smaller area than the Unteraar glacier.

#15

ID: df34b586



By the early 1900s, the Singer Corporation, a US sewing machine manufacturer founded in 1851, began to see rapidly increasing sales abroad, particularly in Russia, Germany, and the United Kingdom. These markets were responsible for the bulk of Singer's overseas sales, but demand for the company's machines in other countries also grew significantly in the early twentieth century. For instance, sales of their sewing machines in _____

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

- A) the Philippines increased dramatically from 1908 to 1918.
- B) New Zealand were largely consistent from 1903 to 1918.
- C) Australia increased steadily from 1903 to 1918.
- D) Turkey declined substantially from 1913 to 1918.

#16

ID: 628e1305

“Valia” is a 1907 short story by Leonid Andreyev. In the story, the author emphasizes that the setting where the character Valia is reading is nearly silent: _____

Which quotation from “Valia” most effectively illustrates the claim?

- A) “The hand in which he carried his book was getting stiff with cold, but he would not ask his mother to take the book from him.”
- B) “Valia was reading a huge, very huge book, almost half as large as himself.”
- C) “Valia approached the window and examined the toys.”
- D) “Everything in the room was quiet, so quiet that the only thing to be heard was the rustling of the pages he turned.”

#17

ID: 81498c6a

Average Prices Received by US Growers for Citrus Fruits, 2020–2021 (dollars per box)

Fruit	June 2020	June 2021	July 2020	July 2021
Grapefruits	\$13.80	\$23.72	\$16.13	\$22.98
Oranges	\$16.15	\$11.09	\$15.53	\$13.79
Lemons	\$19.50	\$28.94	\$21.01	\$31.78

An employee of a citrus grower in the United States is analyzing the prices of several varieties of fruit over the course of a growing season. The employee wishes to know how much a grower could have expected to receive on average for a box of lemons in July 2021. Consulting the table, the employee finds that this amount is _____

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

- A) \$31.78.
- B) \$23.72.
- C) \$22.98.
- D) \$28.94.

#18

ID: 38e79659

Attendance and Cost of Hosting for Past Four US
World's Fairs

World's fairs held in the US	Cost (in US dollars)	Number of visitors
Century 21 Exposition (1962)	\$47 million	9.60 million
HemisFair '68	\$156 million	6.40 million
1984 World's Fair	\$350 million	7.35 million
Expo '74	\$78 million	5.60 million

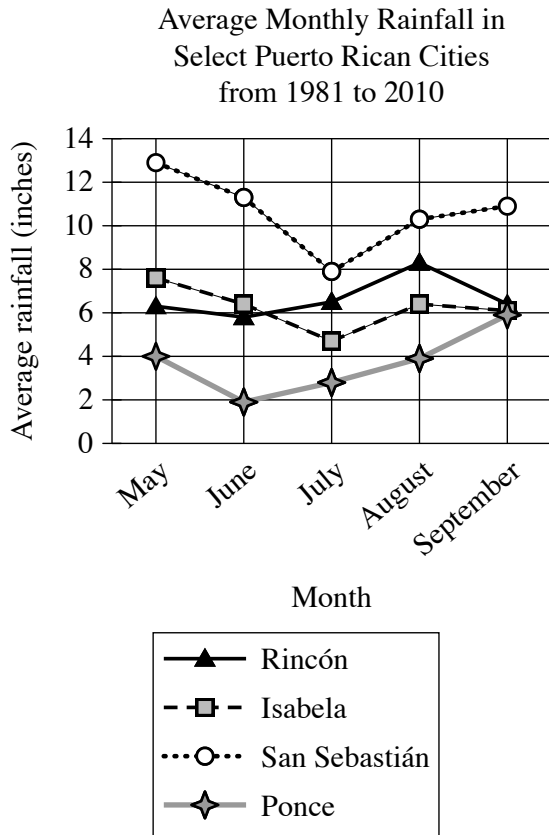
Huge international exhibitions known as world's fairs have been held since 1851, but the United States hasn't hosted one since 1984. Architecture expert Mina Chow argues that this is because some people think the events are too expensive and not popular enough. For example, the 1984 World's Fair cost \$350 million and had only

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

- A) 7.35 million visitors.
- B) 9.60 million visitors.
- C) 6.40 million visitors.
- D) 5.60 million visitors.

#19

ID: 1703403b



A student is presenting average monthly rainfall totals in various Puerto Rican cities for a science class. During the presentation, the student notes that in September _____

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

- A) Rincón's average rainfall is greater than that of Isabela, San Sebastián, and Ponce.
- B) Rincón and Ponce have an average rainfall of about 5 inches, and Isabela and San Sebastián have an average rainfall of about 10 inches.
- C) Rincón, Ponce, and Isabela each have an average rainfall below 8 inches, but San Sebastián's average rainfall that month is greater than 8 inches.
- D) Rincón has a similar average rainfall to Isabela, and Ponce has a similar average rainfall to San Sebastián.

#20

ID: eb775f90

Annual Car Production in the United States,
1910–1925

Year	Number of cars produced	Number of companies producing cars
1910	123,990	320
1915	548,139	224
1920	1,651,625	197
1925	3,185,881	80

A student is using the table as part of a social studies class presentation on the US auto industry in the early twentieth century. The student notes that, according to the table, from 1910 to 1925 _____

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

- A) the number of cars produced increased but the number of companies producing cars decreased.
- B) both the number of cars produced and the number of companies producing cars remained unchanged.
- C) the number of cars produced decreased but the number of companies producing cars remained unchanged.
- D) both the number of cars produced and the number of companies producing cars increased.

#21

ID: c4bee178

Moons of Dwarf Planets

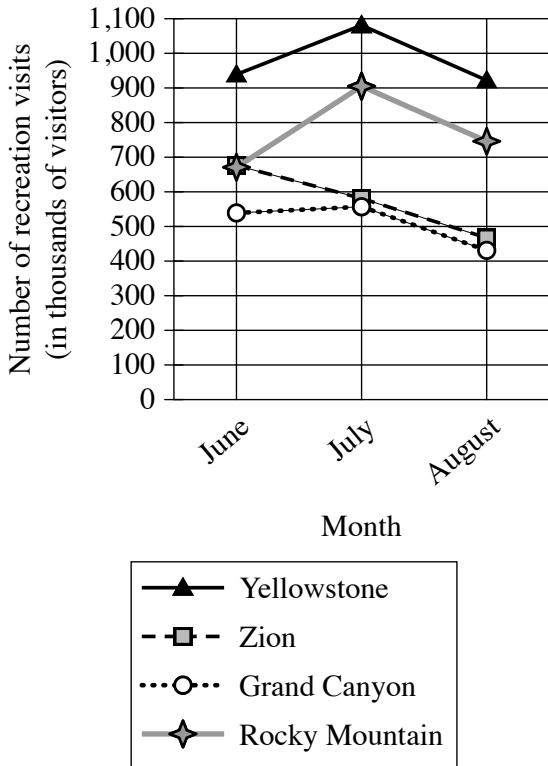
Dwarf planet name	Number of moons	Name of moons
Haumea	2	Hi'iaka, Namaka
Ceres	0	N/A
Makemake	1	MK 2
Eris	1	Dysnomia
Pluto	5	Charon, Nix, Kerberos, Styx, Hydra

Like Earth, some dwarf planets in the solar system have exactly one moon. Two examples of such dwarf planets are _____

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

- A) Eris and Makemake.
- B) Haumea and Eris.
- C) Pluto and Haumea.
- D) Makemake and Ceres.

Recreation Visits by Month
to Four US National Parks during
the Peak Season in 2021



In 2021, four of the United States national parks that were among the most visited were Grand Canyon National Park, Rocky Mountain National Park, Yellowstone National Park, and Zion National Park. The graph shows the number of visits for recreation to each of these parks during the three-month period with the highest number of visitors. A student notes that among the parks shown in the graph, the park with the highest monthly recreation visits in all three months was _____

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

- A) Zion National Park.
- B) Rocky Mountain National Park.
- C) Yellowstone National Park.
- D) Grand Canyon National Park.

#23

ID: 08b28c1a

A researcher conducted an experiment inspired by studies suggesting that people may benefit from feeling frightened in certain circumstances, such as when watching scary movies or visiting haunted attractions. The researcher recruited several participants and had them walk through a local haunted house attraction. Immediately after exiting the attraction, each participant completed a survey about their experience. Based on the survey responses, the researcher claims that feeling frightened in controlled situations can boost a person's mood and confidence.

Which quotation from a participant would best illustrate the researcher's claim?

- A) "After I came out of the haunted house, I felt very accomplished and less stressed."
- B) "My friends kept laughing as we were walking through the haunted house."
- C) "The haunted house was scary at first, but I knew everyone was just acting, so I felt less scared after a few minutes."
- D) "The sense of relief I felt at the end of the haunted house was similar to the feelings I have when I finish a scary movie."

#24

ID: a04807d8

Number of Museum Visits (in Millions) from 2016 to 2019

Museum	2016	2017	2018	2019
National Museum of the American Indian	1.1	1.2	1.1	0.96
National Museum of African American History and Culture	0.73	2.4	1.9	2.0

A student is researching the number of visits each year to two museums, the National Museum of the American Indian and the National Museum of African American History and Culture. Of the four years included in the table, the year when both museums had the highest number of visits was _____

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

- A) 2016.
- B) 2018.
- C) 2019.
- D) 2017.

#25

ID: 23b5cb59

Total Electoral College Votes and Popular Votes
in the 15th US Presidential Election

Candidate	Total electoral college votes	Total popular votes
James K. Polk	170	1,339,494
Henry Clay	105	1,300,004
James Gillespie Birney	0	62,103

A student is writing a paper on the history of the 15th presidential election in the United States, which was held in 1844. The student needs to determine how many electoral college votes were cast for the winning candidate, James K. Polk. According to the table, James K. Polk received _____

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

- A) 170 electoral college votes.
- B) 103 electoral college votes.
- C) 62 electoral college votes.
- D) 44 electoral college votes.

#26

ID: ac7166f7

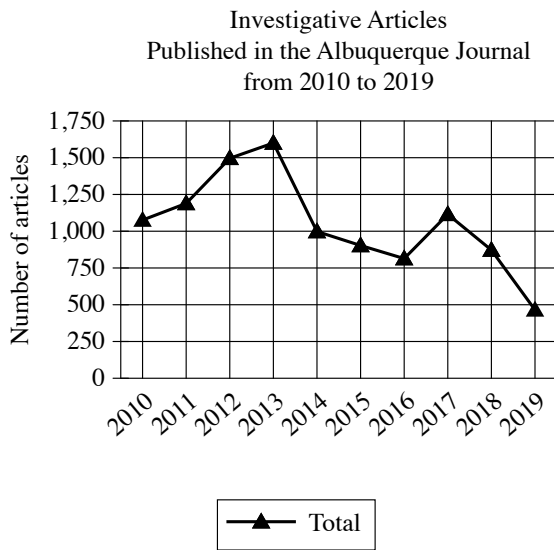
Researchers Narelle Haworth and Amy Schramm studied bicycling behavior in Queensland, Australia. Haworth and Schramm asked adult bike riders questions about their level of experience, reasons for riding a bike, and route preferences. The researchers claim that experienced riders who mainly bike to work tend to prefer routes that reduce their travel time.

Which survey response from a bike rider in Queensland would best support the underlined claim?

- A) "I have a bike, but I don't ride it very often. When the weather is nice, I sometimes use my bike to go into town to do some shopping."
- B) "I just got a new bike, and I'm looking forward to going on rides with my friends soon."
- C) "I bike to my job every day. There's a nice bike path that goes through a park, but I use the bike lane on the main road because it's faster."
- D) "I usually bike to work, but I'm taking the bus now because my bike has a broken part that needs to be fixed."

#27

ID: e441da80



Investigative journalists research and report about fraud, corruption, public hazards, and more. The graph shows the number of investigative articles published in the *Albuquerque Journal* newspaper from 2010 to 2019. According to an analyst, although the number of investigative articles published in this newspaper has varied significantly over the period shown, the number overall has fallen since 2010.

Which choice most effectively uses data from the graph to justify the underlined claim?

- A) The newspaper published approximately 1,000 investigative articles in 2010 and approximately 500 in 2019.
- B) The smallest annual number of investigative articles published in the newspaper during the period shown is approximately 1,600 in 2013.
- C) The greatest annual number of investigative articles published in the newspaper during the period shown is approximately 1,000 in 2017.
- D) The newspaper published approximately 1,000 investigative articles in 2010 and approximately 1,600 in 2013.

#28

ID: 08ff903e

A museum curator is writing a biographical statement about Trinidadian-born Chinese dancer, choreographer, and teacher Dai Ailian for a new exhibit on Chinese dance. The curator claims that some of the pieces Dai created shortly after arriving in mainland China in 1941, such as the solo dance *Yao Drum*, reflect a desire to represent the dances of local communities Dai visited during her travels through China.

Which quotation from a work by a dance historian would be the most effective evidence for the curator to include in support of this claim?

- A) “There is no sound or music accompanying Dai’s movements in *Yao Drum*, aside from the sounds of drumsticks beating against a drum and against each other.”
- B) “Unlike some of the works Dai created in the early 1940s, *Yao Drum* does not feature a narrative structure, humorous elements, or references to real-life events.”
- C) “*Yao Drum* was inspired by a ceremonial dance Dai witnessed during her time performing field research among the Yao people in the province of Guizhou in 1941 or 1942.”
- D) “*Yao Drum* is notable for its intense physicality, with Dai performing sharp jumps, swift turns, and dramatic sweeps of her legs through the air as she moves in circles on the stage.”

#29

ID: 47f2cddd

“The Rock and the Sea” is an 1893 poem by Charlotte Perkins Gilman. In the poem, a rock is portrayed as intending to confront and restrain the sea: _____

Which quotation from “The Rock and the Sea” most effectively illustrates the claim?

- A) “I am the Rock. Black midnight falls; / The terrible breakers rise like walls; / With curling lips and gleaming teeth / They plunge and tear at my bones beneath.”
- B) “I am the Sea. I hold the land / As one holds an apple in his hand, / Hold it fast with sleepless eyes, / Watching the continents sink and rise.”
- C) “I am the Rock, presumptuous Sea! / I am set to encounter thee. / Angry and loud or gentle and still, / I am set here to limit thy power, and I will!”
- D) “I am the Sea. The earth I sway; / Granite to me is potter’s clay; / Under the touch of my careless waves / It rises in turrets and sinks in caves.”

#30

ID: 26ee16ba

Hip-hop pedagogy is a form of teaching that's gaining popularity across school subjects. It involves incorporating hip-hop and rap music into lessons as well as using hip-hop elements when teaching other subject matters. For example, Quan Neloms's students look for college-level vocabulary and historical events in rap songs. Researchers claim that in addition to developing students' social justice awareness, hip-hop pedagogy encourages student success by raising students' interest and engagement.

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

- A) Students tend to be more enthusiastic about rap music than they are about hip-hop music.
- B) Students who are highly interested in social justice issues typically don't sign up for courses that incorporate hip-hop and rap music.
- C) Educators report that they enjoy teaching courses that involve hip-hop and rap music more than teaching courses that don't.
- D) Courses that incorporate hip-hop and rap music are among the courses with the highest enrollment and attendance rates.

#31

ID: 0b96fa93

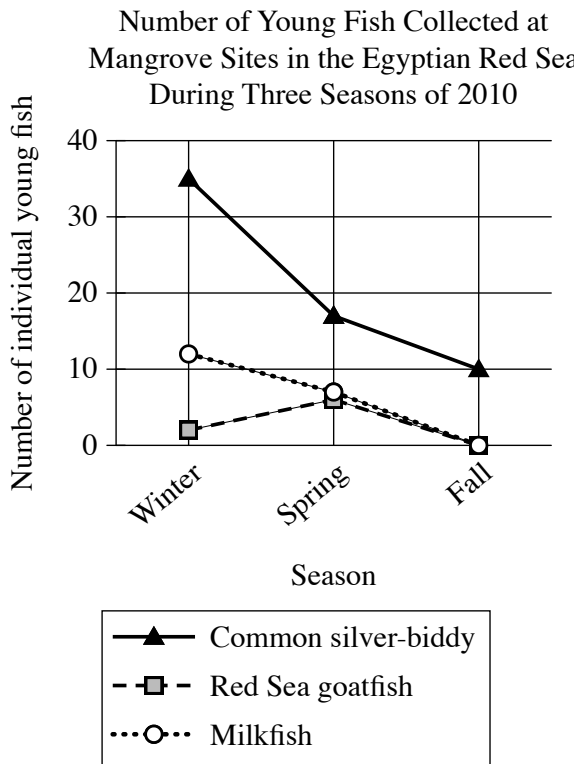
Maximum Height of Maple Trees When Fully Grown

Tree type	Maximum height (feet)	Native to North America
Sugar maple	75	yes
Silver maple	70	yes
Red maple	60	yes
Japanese maple	25	no
Norway maple	50	no

For a school project, a forestry student needs to recommend a maple tree that is native to North America and won't grow more than 60 feet in height. Based on the characteristics of five common maple trees, she has decided to select a _____

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

- A) silver maple.
- B) sugar maple.
- C) red maple.
- D) Norway maple.



Mangroves are trees or bushes that grow on the coastlines of seas and rivers. Areas with mangroves are great places for young fish since they help keep these fish fed and protected while they grow. To study the importance of mangroves to young fish, researchers Mohamed A. Abu El-Regal and Nesreen K. Ibrahim collected and identified young fish from three different mangrove sites in the Egyptian Red Sea. They collected fish in the winter, spring, and autumn of 2010, collecting a total of 269 fish from 21 different species. For some species, more fish were collected in the winter than the other two seasons, for instance: _____

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

- A) more common silver-biddy and milkfish were collected in the winter than in either of the other two seasons.
- B) the common silver-biddy was collected more frequently than the other two species in all three seasons.
- C) in the spring, researchers collected more Red Sea goldfish than they collected from the other two species.
- D) in the fall, researchers collected 10 common silver-biddy but collected no milkfish or Red Sea goatfish.

#33

ID: 0113152f

American fashion designer Patrick Kelly was known for his love of colorful buttons. Many of his signature dresses feature bold assortments of buttons throughout the garment. In a paper, a fashion design student claims that Kelly's use of buttons as decoration was inspired by his childhood observations of the styles and actions of the women in his family.

Which quotation from a work by a historian would be the most effective evidence for the student to include in support of this claim?

- A) "Although some of the assortments of buttons appear to be mismatched pieces scattered randomly throughout Kelly's dresses, his most famous designs feature carefully crafted patterns of matching buttons."
- B) "Many of Kelly's contemporaries were inspired by his designs to incorporate buttons, as well as zippers and snaps, as decorative items in their work."
- C) "Kelly's grandmother, who would repair clothing when he was a child, frequently added mismatched buttons to the clothes to draw attention away from any flaws in the garments."
- D) "Kelly was destined to be a designer from a young age: he learned how to sew clothing from his aunt Bertha, and his love of drawing was developed by his mother."

#34

ID: f38b40ac

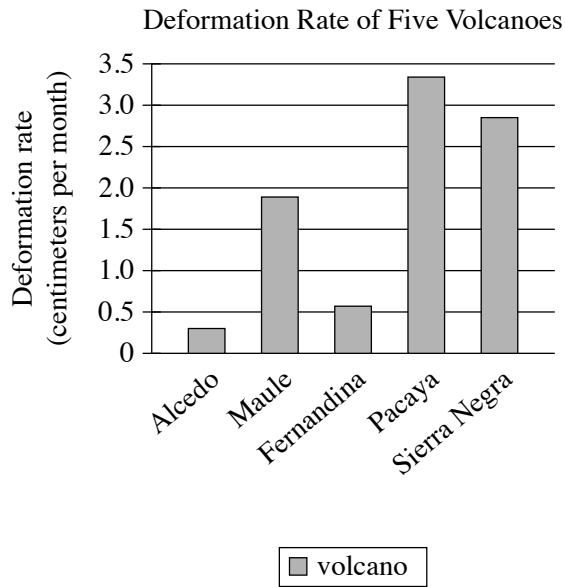
In addition to her technical skill and daring feats, American stunt pilot Bessie Coleman was also known for dazzling the crowds that came to watch her air shows in the 1920s with her exuberant personality. During her career, she was careful and purposeful about how she crafted her public persona. An aviation researcher has claimed that Coleman intentionally defied social norms of the time by how she chose to present herself to the public.

Which quotation from an article about Coleman would most directly support the aviation researcher's claim?

- A) "For her air shows, Coleman frequently used the Curtiss JN-4, or 'Jenny,' which at that time was one of the most well-known types of planes."
- B) "While Coleman was beloved by spectators for her charisma, she had a more complicated relationship with her managers and staff, who at times found her behavior too impulsive and demanding."
- C) "Coleman once considered leaving her career as a stunt pilot to focus her efforts on giving speeches, which she felt would better support her public image."
- D) "Although female pilots were typically expected to wear traditional but impractical attire that included dresses or skirts, photographs of Coleman show her wearing pants and leather jackets."

#35

ID: 89f71526



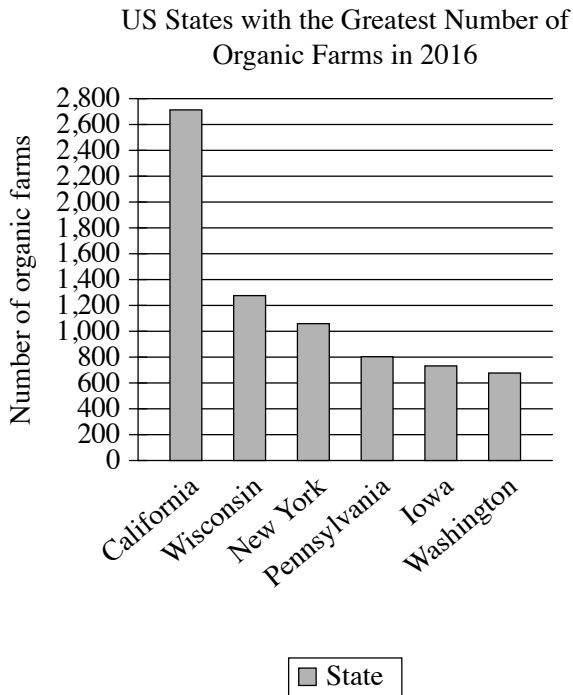
When magma moves underneath a volcano, it causes the surface of the volcano to change. This is known as deformation. Researchers recently calculated the amount of deformation occurring each month for five volcanoes in Latin America. Although Sierra Negra experienced a lot of deformation, its deformation rate was still lower than that of _____

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

- A) Alcedo.
- B) Pacaya.
- C) Fernandina.
- D) Maule.

#36

ID: 8af28416



Organic farming is a method of growing food that tries to reduce environmental harm by using natural forms of pest control and avoiding fertilizers made with synthetic materials. Organic farms are still a small fraction of the total farms in the United States, but they have been becoming more popular. According to the US Department of Agriculture, in 2016 California had between 2,600 and 2,800 organic farms and _____

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

- A) Washington had between 600 and 800 organic farms.
- B) New York had fewer than 800 organic farms.
- C) Wisconsin and Iowa each had between 1,200 and 1,400 organic farms.
- D) Pennsylvania had more than 1,200 organic farms.

#37

ID: 145da981

Effect of Paywall Introduction on Newspaper
Companies' Revenues

Newspaper	Total revenue change (\$ in thousands)	Percentage change (%)	Newspaper size
<i>Los Angeles Times</i>	93,966	12.5	large
<i>The New York Times</i>	235,788	20	large
<i>The Denver Post</i>	-3,765	-1	small
<i>Sun Sentinel</i>	-24,899	-11.9	small
<i>Chicago Tribune</i>	94,492	19	large

Digital paywalls restrict access to online content to those with a paid subscription. In an investigation of the effect of paywalls on newspaper company revenues for print and digital subscriptions and advertising, Doug J. Chung and colleagues compared actual outcomes (with a paywall) to control estimates (without a paywall). The researchers concluded that introducing a paywall is generally more beneficial for larger newspapers, which have high circulation and tend to offer a substantial amount of unique online content.

Which choice best describes data from the table that support Chung and colleagues' conclusion?

- A) The *Chicago Tribune* and the *Los Angeles Times* had similar total revenue changes, but the *Los Angeles Times* had a smaller percentage change.
- B) The *Los Angeles Times* had a 12.5% revenue change, while the *Chicago Tribune* had a 19% revenue change.
- C) The *New York Times* had a 20% revenue change, while the *Denver Post* had a -1% revenue change.
- D) The *Denver Post* had only a -1% revenue change, which was the smallest percentage change of the selected companies.

#38

ID: 46e45728

Daily Distance Traveled by Adult Mountain Lions
in Three Seasons

Season	Kilometers per day traveled by adult females	Kilometers per day traveled by adult males
cold-dry	9.28	15.81
monsoon	12.64	18.93
hot-dry	12.48	18.87

Wildlife researcher Dana L. Karelus and her colleagues tracked the movements of female and male adult mountain lions over three seasons: the cold-dry season, the hot-dry season, and the monsoon season. They found that the least amount of travel per day occurred in _____

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

- A) the cold-dry season for both females and males.
- B) the cold-dry season for females and the hot-dry season for males.
- C) the hot-dry season for females and the monsoon season for males.
- D) the monsoon season for both females and males.

#39

ID: faaf484f

Percent of Residents of City Areas in Favor of
Adding More Bike Paths

City Area	Percent of area's residents in favor of adding more bike paths
North East	12%
North Central	26%
North West	46%
South West	88%
South Central	33%

A city's Parks and Recreation department is interested in providing residents with more opportunities for bicycling in their neighborhoods. They're considering adding more bike paths and conducted a survey to understand where demand for more bike paths is highest. The survey indicated the highest level of demand, with 88 percent of the residents interested in adding more bike paths, is in the city's _____

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

- A) South West area.
- B) South Central area.
- C) North East area.
- D) North Central area.

#40

ID: 7fdb7ad

The Milky Way galaxy is composed of millions of stars in a relatively flat structure containing a thin disk and a thick disk. Based on computer simulations and analysis of data on the brightness, position, and chemical composition of about 250,000 stars in the thick disk (collected from two telescopes, one in China and one orbiting in space), astrophysicists Maosheng Xiang and Hans-Walter Rix claim that the thick disk of the Milky Way formed in two distinct phases rather than a single one.

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

- A) The telescopes used by the researchers have detected stars of similar ages in galaxies other than the Milky Way.
- B) There's an age difference of about 2 billion years between certain stars in the thick disk.
- C) The thin disk contains about twice as many stars that can be seen from Earth as the thick disk does.
- D) The stars in the Milky Way tend to have very similar chemical compositions.

#41

ID: 7254379e

Some residents in a neighborhood in Atlanta recently founded a community garden inside a local park. The residents agreed to volunteer to take care of the garden together. Students at a local high school surveyed some of the volunteers as part of a project to understand the impact of the new garden. The students concluded that the new garden benefited the community overall by fostering connections and relationships between the volunteers and other residents of the neighborhood who weren't volunteering at the garden.

Which quotation from a survey respondent would best illustrate the students' conclusion?

- A) "Our first challenge was deciding what plants would be most suitable to the climate and soil here in Atlanta. We needed plants that could survive the hot and humid summers."
- B) "We're lucky to have a few expert gardeners living in the neighborhood. Some volunteers and I have gone to them a few times with questions, and they've been eager to help us and to learn more about the project."
- C) "I love getting the opportunity to be outside and around nature, especially on days when the weather is nice."
- D) "My favorite thing about the garden is the feeling of pride I get when I walk by each day. As I see the plants growing, I feel good knowing I had a small part in creating this beautiful space in the neighborhood."

#42

ID: 5ff1ba73

Guilds in French Cities in the Late Eighteenth Century

City	Date	Inhabitants	Number of guilds	Inhabitants per guild
Paris	1766	600,000	133	4,511
Bordeaux	1762	80,000	49	1,633
Rouen	1775	74,000	112	661
Lyon	1789	143,000	72	1,986

Guilds—local associations of artisans and merchants in the same industry—were widespread in France from the medieval period until the late eighteenth century. But guilds were much more numerous relative to the population in some cities than in others: for example, _____

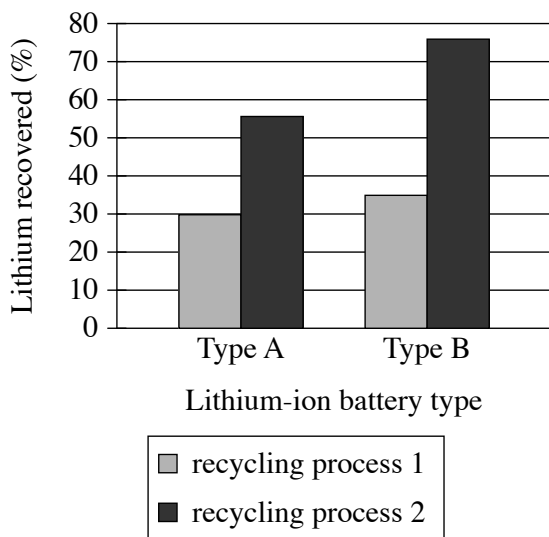
Which choice most effectively uses data from the table to complete the statement?

- A) there were 49 guilds in Bordeaux but 72 guilds in Lyon despite the two cities having nearly equal numbers of inhabitants.
- B) Lyon had far fewer inhabitants than Paris did but had many more guilds.
- C) there was one guild for every 661 inhabitants in Rouen but one guild for every 4,511 inhabitants in Paris.
- D) Paris had 133 guilds and 600,000 inhabitants, or one guild for every 4,511 inhabitants.

#43

ID: 5c73f0cc

Test Results for Two New Battery Recycling Processes



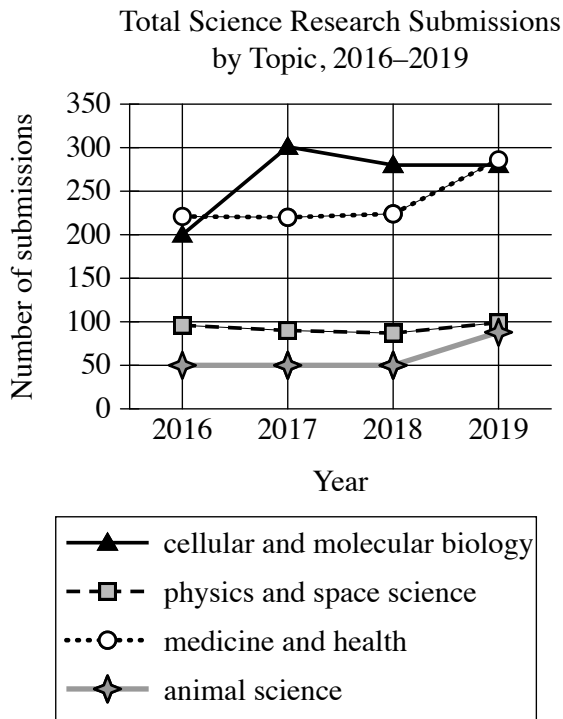
A team of scientists wants to improve the recycling of two of the most common types of lithium-ion batteries used in electronic devices. The team tested two new processes that involve grinding battery materials and aluminum foil together. The highest percentage of lithium recovered in the tests was closest to _____

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

- A) 75%.
- B) 10%.
- C) 45%.
- D) 20%.

#44

ID: 800771e5



A student is researching the trends in the topics submitted to a national science fair for high school students. The graph shows the number of submissions by topic that were made each year. Based on the data in the graph, the student claims that there were more medicine and health research topics submitted in 2019 than in any other year.

Which choice most effectively uses data from the graph to support the underlined claim?

- A) In 2016, the number of cellular and molecular biology topic submissions was the same as the number of animal science topic submissions.
- B) In 2019, there were more physics and space science topic submissions than there were medicine and health topic submissions.
- C) The lowest number of animal science topic submissions in a year was approximately 95 in 2016.
- D) The highest number of medicine and health topic submissions during the period shown is approximately 285 in 2019.

#45

ID: 72c7dafd

Happy House is a 1920 novel by Jane Abbott. The narrator presents a young woman as being unimpressed with the house she is visiting:

Which quotation from *Happy House* most effectively illustrates the claim?

- A) “Her first feeling was of disappointment; in the square lines of the house there was little claim to beauty.”
- B) “Someone had opened one of the blinds so here there was more light.”
- C) “The door, built squarely in the middle of the house, opened almost directly upon a stone-flagged path that led in a straight line to the road.”
- D) “She tip-toed through the hall and opened the door on the right.”

#46

ID: 11c00ab9

Estimated Impacts of Invasive Predator Species
on Threatened Birds, Mammals, and Reptiles

Invasive predator species	Estimated impact on threatened birds	Estimated impact on threatened mammals	Estimated impact on threatened reptiles
Mongoose	0.66	0.75	0.44
Dogs	0.67	0.57	0.44
Cats	0.74	0.61	0.52

How harmful are invasive predators to threatened species? To find out, researchers assigned values from 0.25 to 1.00 to various harms caused by invasive predators. The researchers then used these values to estimate the extent to which several invasive predator species have harmfully impacted threatened birds, mammals, and reptiles. In the table, higher numbers represent greater impacts. The estimated impact of invasive mongooses on threatened mammals is _____

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

- A) 0.35.
- B) 0.61.
- C) 0.75.
- D) 0.52.

#47

ID: af125459

Number and Origin of Clamshell Tools Found at
Different Depths below the Surface in
Neanderthal Cave

Depth of tools found below surface in cave (meters)	Clamshells that Neanderthals collected from the beach	Clamshells that Neanderthals harvested from the seafloor
2–3	7	0
3–4	99	33
4–5	2	0
5–6	18	7
6–7	1	0

Two kinds of clamshell tools used by Neanderthals were dug up in a cave on the western coast of Italy. Archaeologist Paola Villa and her colleagues studied the tools and determined that Neanderthals either collected clams that had washed onto the beach or harvested clams from the seafloor and then sharpened the shells to make tools. The highest number of tools made from clamshells that were collected from the beach was found at a depth of _____

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

- A) 5–6 meters below the surface.
- B) 4–5 meters below the surface.
- C) 3–4 meters below the surface.
- D) 6–7 meters below the surface.

#48

ID: 3f7f35ea

“The Bet” is an 1889 short story by Anton Chekhov. In the story, a banker is described as being very upset about something: _____

Which quotation from “The Bet” most effectively illustrates the claim?

- A) “Then the banker cautiously broke the seals off the door and put the key in the keyhole.”
- B) “It struck three o’clock, the banker listened; everyone was asleep in the house and nothing could be heard outside but the rustling of the chilled trees.”
- C) “The banker, spoilt and frivolous, with millions beyond his reckoning, was delighted at the bet.”
- D) “When [the banker] got home he lay on his bed, but his tears and emotion kept him for hours from sleeping.”

#49

ID: ab94d40a

Time Participants Spent Reading about Five
London Museums

Museum Name	Ranking	Percentage of total time spent reading about museum by participants provided with ranking	Percentage of total time spent reading about museum by participants not provided with ranking
British Museum	1	36	18
National Gallery	2	21	20
Tate Modern	4	16	17
Victoria and Albert Museum	5	14	23
Natural History Museum	3	13	22

Researchers recently conducted an experiment to understand how we use rankings to make decisions. They created a fictitious travel website describing five museums in London. Then, they invited two groups of participants, who had never visited the museums, to review the site and select the museum they would be most likely to visit. Meanwhile, the researchers tracked the amount of time each participant spent reading about each museum. For one group, the website ranked each museum, titling the page “The Top 5 Museums in London.” For the other group, the museums and their descriptions were not ranked. The researchers concluded that when reviewing ranked lists, we tend to focus on the top-ranked option.

Which choice best describes data in the table that support the researchers’ conclusion?

- A) Participants who were not provided with a ranking of the museums spent roughly equal amounts of time reading about each museum.
- B) Participants who were provided with a ranking of the museums spent disproportionately more time reading about the British museum.
- C) Participants who were provided with a ranking of the museums spent the least amount of time reading about the Natural History Museum.
- D) Participants who were not provided with a ranking of the museums spent the most time reading about the Victoria and Albert Museum.

#50

ID: c384987b

Scientists have long believed that giraffes are mostly silent and communicate only visually with one another. But biologist Angela Stöger and her team analyzed hundreds of hours of recordings of giraffes in three European zoos and found that giraffes make a very low-pitched humming sound. The researchers claim that the giraffes use these sounds to communicate when it's not possible for them to signal one another visually.

Which finding, if true, would most directly support Stöger and her team's claim?

- A) Giraffes have an excellent sense of vision and can see in color.
- B) The giraffes only produced the humming sounds at night when they couldn't see one another.
- C) Wild giraffes have never been recorded making humming sounds.
- D) Researchers observed other animals in European zoos humming.