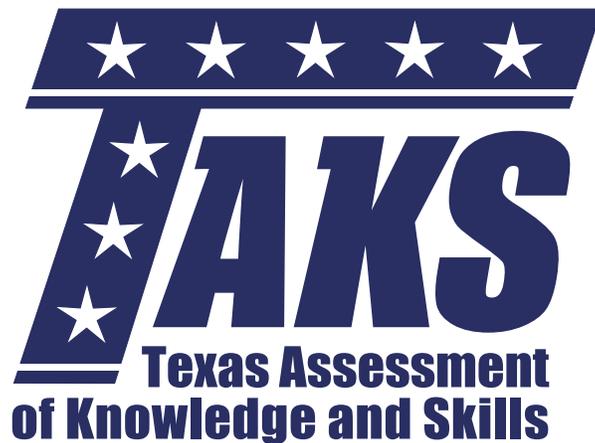


STUDENT NAME _____



**GRADE 8
MATHEMATICS
READING
SOCIAL STUDIES**

Administered Spring 2004

MATHEMATICS

Mathematics Chart

LENGTH

Metric

1 kilometer = 1000 meters

1 meter = 100 centimeters

1 centimeter = 10 millimeters

Customary

1 mile = 1760 yards

1 mile = 5280 feet

1 yard = 3 feet

1 foot = 12 inches

CAPACITY AND VOLUME

Metric

1 liter = 1000 milliliters

Customary

1 gallon = 4 quarts

1 gallon = 128 ounces

1 quart = 2 pints

1 pint = 2 cups

1 cup = 8 ounces

MASS AND WEIGHT

Metric

1 kilogram = 1000 grams

1 gram = 1000 milligrams

Customary

1 ton = 2000 pounds

1 pound = 16 ounces

TIME

1 year = 365 days

1 year = 12 months

1 year = 52 weeks

1 week = 7 days

1 day = 24 hours

1 hour = 60 minutes

1 minute = 60 seconds

Metric and customary rulers can be found on the separate Mathematics Chart.

Continued on the next page

Mathematics Chart

Perimeter	square	$P = 4s$
	rectangle	$P = 2l + 2w$ or $P = 2(l + w)$
Circumference	circle	$C = 2\pi r$ or $C = \pi d$
Area	square	$A = s^2$
	rectangle	$A = lw$ or $A = bh$
	triangle	$A = \frac{1}{2}bh$ or $A = \frac{bh}{2}$
	trapezoid	$A = \frac{1}{2}(b_1 + b_2)h$ or $A = \frac{(b_1 + b_2)h}{2}$
	circle	$A = \pi r^2$
Surface Area	cube	$S = 6s^2$
	cylinder (lateral)	$S = 2\pi rh$
	cylinder (total)	$S = 2\pi rh + 2\pi r^2$ or $S = 2\pi r(h + r)$
	cone (lateral)	$S = \pi rl$
	cone (total)	$S = \pi rl + \pi r^2$ or $S = \pi r(l + r)$
	sphere	$S = 4\pi r^2$
Volume	prism	$V = Bh^*$
	cylinder	$V = Bh^*$
	pyramid	$V = \frac{1}{3}Bh^*$
	cone	$V = \frac{1}{3}Bh^*$
	sphere	$V = \frac{4}{3}\pi r^3$
<i>*B represents the area of the Base of a solid figure.</i>		
Pi	π	$\pi \approx 3.14$ or $\pi \approx \frac{22}{7}$
Pythagorean Theorem		$a^2 + b^2 = c^2$
Simple Interest Formula		$I = prt$

DIRECTIONS

Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not here.”

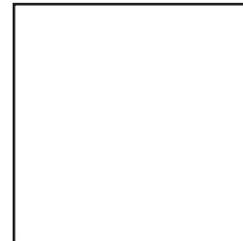
SAMPLE A

Find the greatest common factor of 12 and 18.

- A 3
- B 6
- C 9
- D Not here

SAMPLE B

Find the perimeter of this square rug in meters.



3.2 m

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.



1 The table below shows land-speed records.

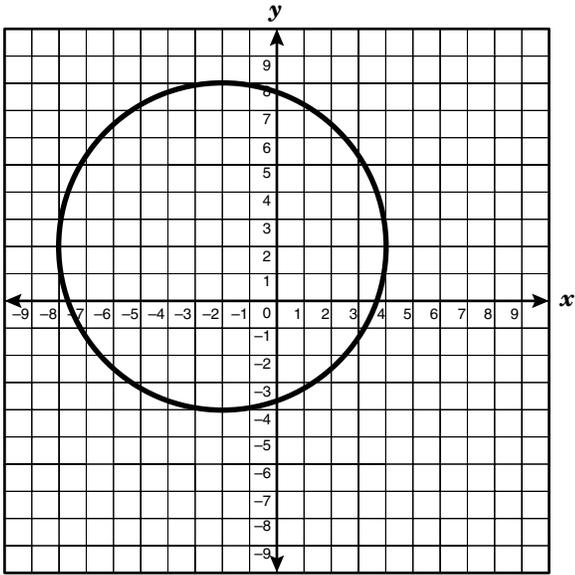
Land-Speed Records

Driver	Year	Speed (mph)
Campbell	1935	301.13
Elyston	1938	357.5
Cobb	1947	394.2
Breedlove	1965	600.6
Noble	1983	633.47
Green	1997	763.04

Whose land-speed record did Green exceed by exactly 368.84 miles per hour?

- A Elyston
- B Cobb
- C Breedlove
- D Noble

- 2 A circle with a radius of 6 units is shown below.



What are the coordinates of the center of the circle?

- F $(-1, 2)$
- G $(-2, 3)$
- H $(-2, 2)$
- J $(-3, 2)$

- 3 The diameter of a blood cell is measured in micrometers. A micrometer is 0.000001 meter. Which expression represents this number in scientific notation?

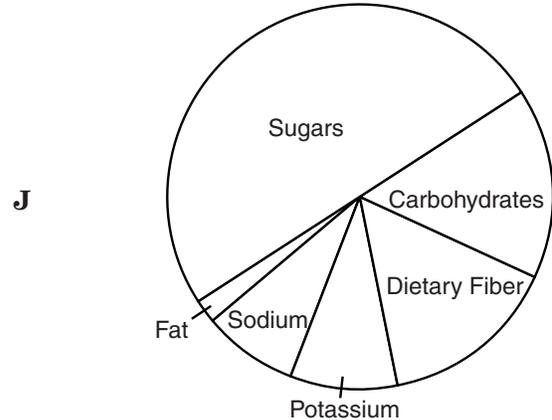
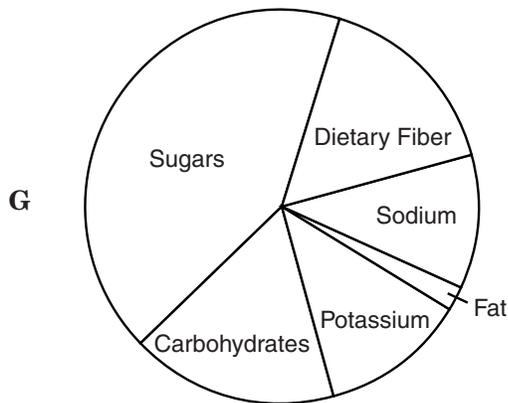
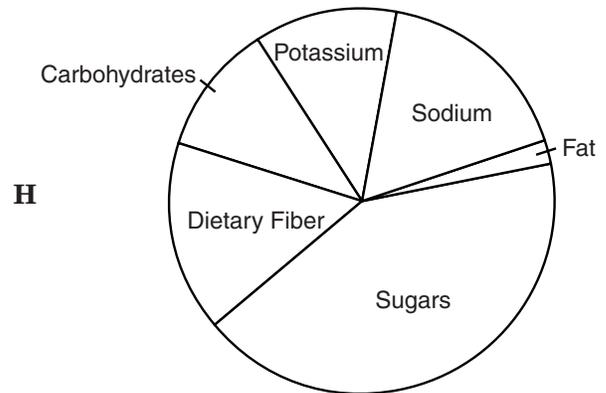
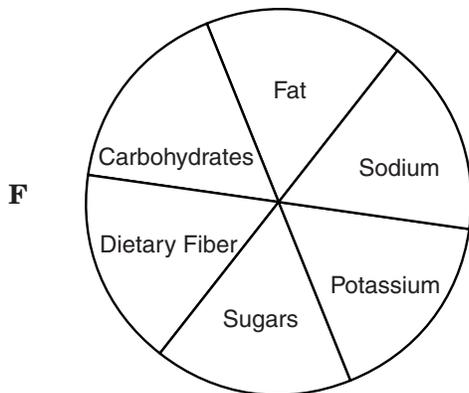
- A 1.0×10^7
- B 1.0×10^6
- C 1.0×10^{-6}
- D 1.0×10^{-7}

- 4 Miss Koziel eats a bowl of her favorite cereal every morning. The table below shows the nutritional content of one serving of this cereal.

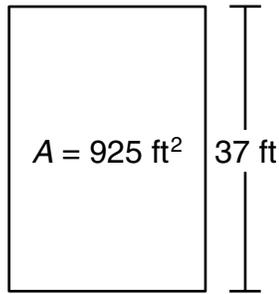
Cereal's Nutritional Content

Nutrition	Percent of Serving
Fat	2%
Sodium	11%
Potassium	12%
Carbohydrates	17%
Dietary Fiber	16%
Sugars	42%

Which circle graph best represents these data?



- 5 An architect designed a rectangular room with an area of 925 square feet.



What is the width of the room if the length is 37 feet?

- A 25 ft
- B 74 ft
- C 425.5 ft
- D 462.5 ft

- 6 The Webster Junior High faculty includes 37 teachers. The principal's and teachers' annual salaries total \$1,266,140. If the principal's salary is \$54,250, which equation can be used to find s , the average salary for a teacher at Webster Junior High?

F $s = \frac{(1,266,140 + 54,250)}{37}$

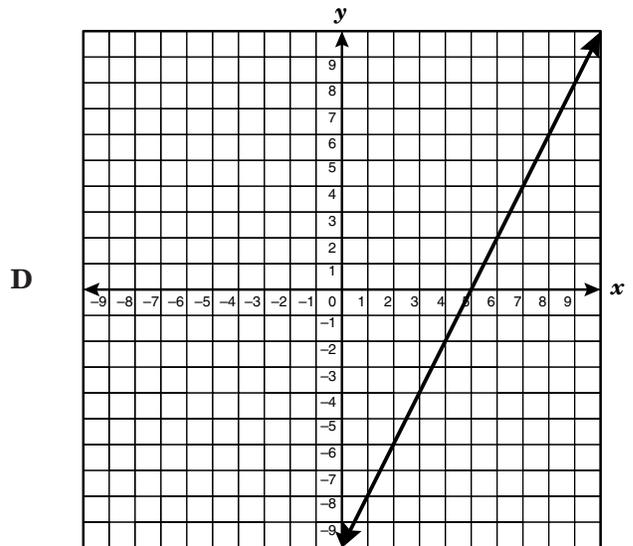
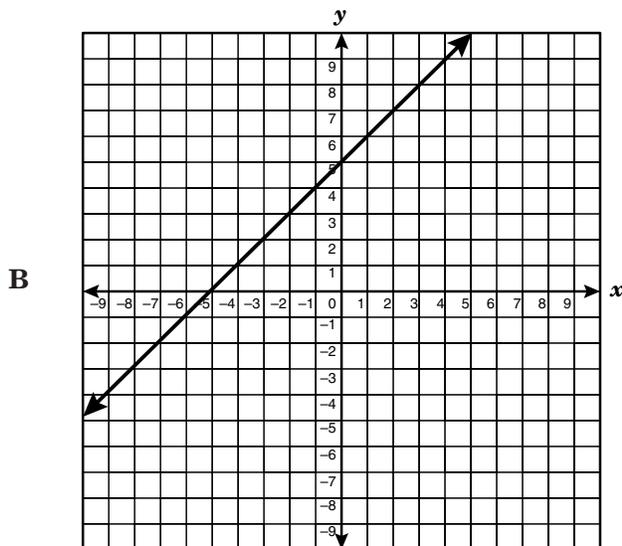
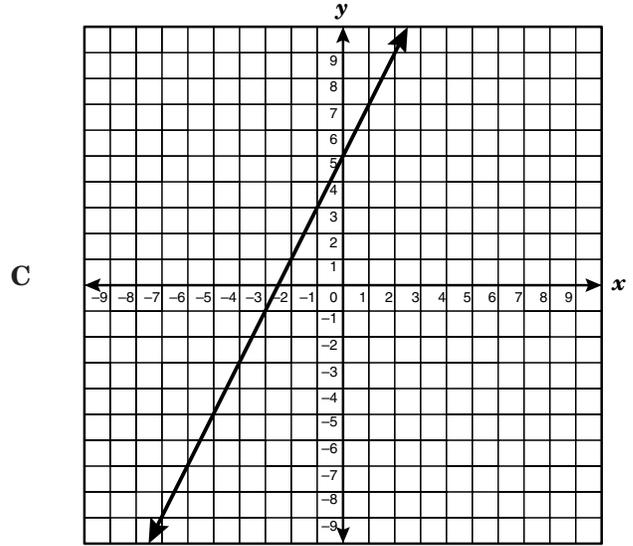
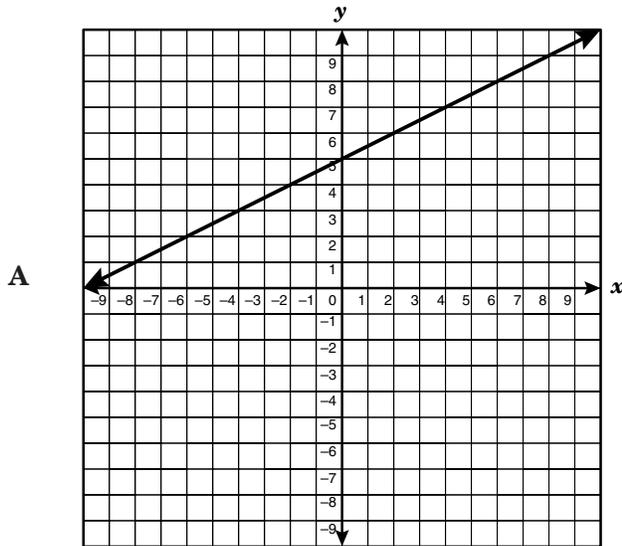
G $s = 1,266,140 + \frac{54,250}{37}$

H $s = 1,266,140 - \frac{54,250}{37}$

J $s = \frac{(1,266,140 - 54,250)}{37}$

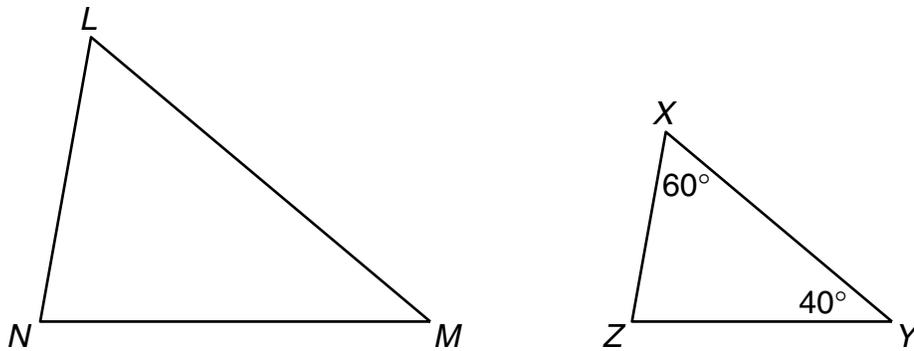
7 Which line graphed below best represents the table of values for the ordered pair (x, y) ?

x	y
-3	3.5
0	5
2	6
5	7.5



- 8 Principal Alcocer determined that 80% of the students at his school wore boots to school at least two days a week during winter. If his school has 1,200 students, which statement does NOT represent Principal Alcocer's data?
- F During winter 960 students wear boots to school at least two days a week.
- G During winter 240 students wear boots to school fewer than two days a week.
- H During winter more than $\frac{1}{2}$ of the students wear boots to school at least two days a week.
- J During winter less than $\frac{1}{5}$ of the students wear boots to school fewer than two days a week.
-

- 9 $\triangle LMN$ is similar to $\triangle XYZ$.



Which procedure can be used to find the number of degrees in $\angle N$?

- A Subtract 100 from 360
- B Subtract 100 from 180
- C Divide 100 by 2
- D Divide 180 by 3

10 A pattern of equations is shown below.

$$1\% \text{ of } 800 = 8$$

$$2\% \text{ of } 400 = 8$$

$$4\% \text{ of } 200 = 8$$

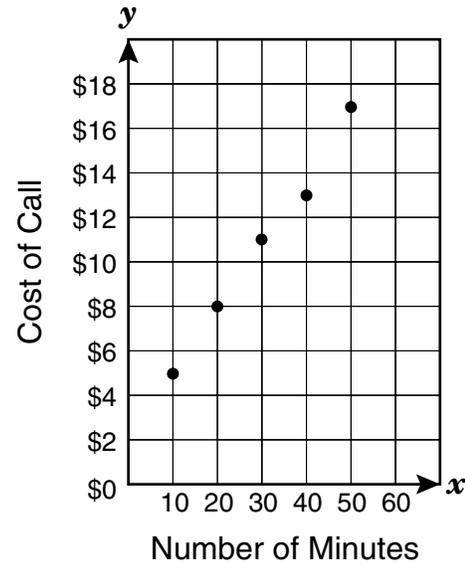
$$8\% \text{ of } 100 = 8$$

$$16\% \text{ of } 50 = 8$$

Which statement best describes this pattern of equations?

- F When the percent is doubled and the other number is halved, the answer is 8.
- G When the percent is doubled and the other number is doubled, the answer is 8.
- H When the percent is increased by 2 and the other number remains the same, the answer is 8.
- J When the percent remains the same and the other number is increased by 2, the answer is 8.

11 The scatterplot below shows the cost of phone calls Betsy made to her brother overseas in relation to the number of minutes per phone call.



Based on the information in the scatterplot, which statement is a valid conclusion?

- A As Betsy made more phone calls, the cost of the phone calls increased.
- B As Betsy made fewer phone calls, the cost of the phone calls decreased.
- C As Betsy decreased the number of minutes on the phone, the number of phone calls decreased.
- D As Betsy increased the number of minutes on the phone, the cost of the phone calls increased.

12 After careful consideration of the menu shown below, Mireya purchased Charlie's Value Meal No. 2.

Charlie's Menu

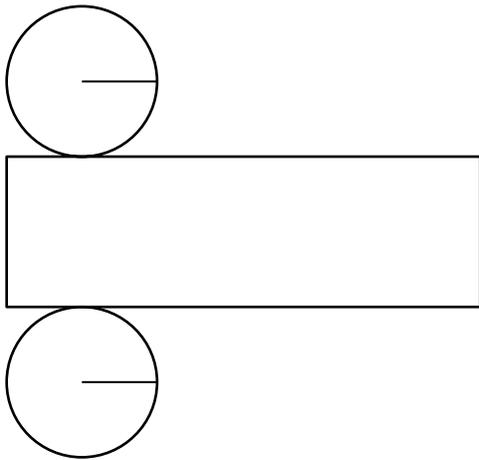
Value Meal #1	Sandwiches	Sides
\$4.29	Regular Burger \$1.99	Small Fries \$0.99
Regular Burger, Medium Fries, Medium Drink	Bacon Burger \$2.39	Medium Fries \$1.29
	Chicken Sandwich \$2.49	Large Fries \$1.69
	Fish Sandwich \$2.29	Small Onion Rings \$1.19
		Medium Onion Rings \$1.39
		Large Onion Rings \$1.69
Value Meal #2	Drinks	
\$4.69	Small Soft Drink \$0.99	
Chicken Sandwich, Medium Fries, Medium Drink	Medium Soft Drink \$1.29	
	Large Soft Drink \$1.59	
	Shake or Malt \$1.89	

**CHARLIE'S**

Mireya calculated her savings by finding the sum of \$2.49 plus 2 times \$1.29. What did Mireya do next to calculate her savings?

- F Add \$1.29 to the sum
- G Divide the sum by 3
- H Subtract \$4.29 from the sum
- J Subtract \$4.69 from the sum

- 13 Mrs. Juárez has a cylindrical pincushion with the net shown below. Use the ruler on the Mathematics Chart to measure the dimensions of the net in centimeters.



Which is closest to the lateral surface area of the cylindrical pincushion?

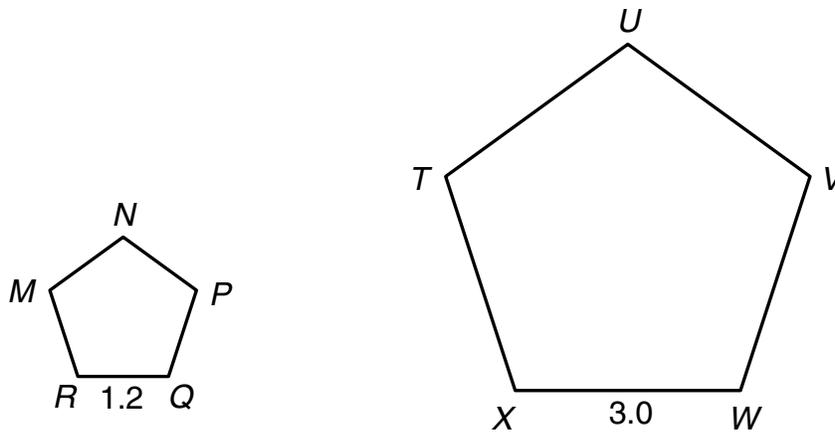
- A 3.0 cm^2
- B 6.3 cm^2
- C 9.4 cm^2
- D 12.6 cm^2

- 14 Mr. Flores ran a 26.1-mile marathon last year. He completed the race in 5 hours 6 minutes. This year Mr. Flores would like to run the same marathon in 4.5 hours. How many miles per hour should Mr. Flores run to complete the marathon in 4.5 hours?

$$[D = rt]$$

- F 5.8 mph
- G 6.2 mph
- H 11.8 mph
- J 5.6 mph

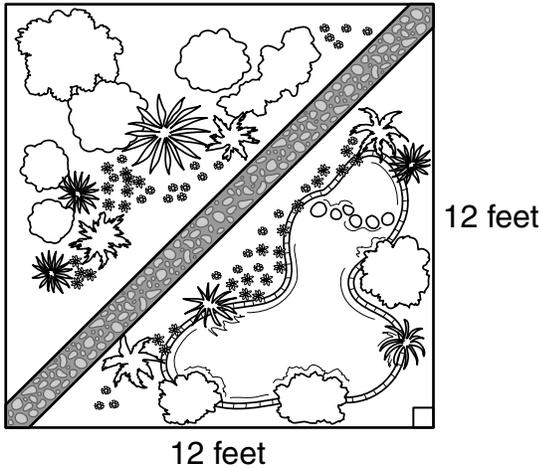
- 15 Regular pentagon $MNPQR$ is similar to pentagon $TUVWX$.



What scale factor was used to dilate regular pentagon $MNPQR$ to pentagon $TUVWX$?

- A 0.4
B 1.8
C 2.5
D 4.2
-
- 16 Cody's parents bought a big-screen television for \$1,099.99 and a DVD player for \$99.99, including tax. Cody's parents plan to pay the total amount in 18 equal monthly payments. What is a reasonable amount for each monthly payment?
- F \$50.00
G \$150.00
H \$113.00
J \$67.00

- 17 Mr. Elliott designed a flower garden in the shape of a square. He plans to build a walkway through the garden, as shown below.



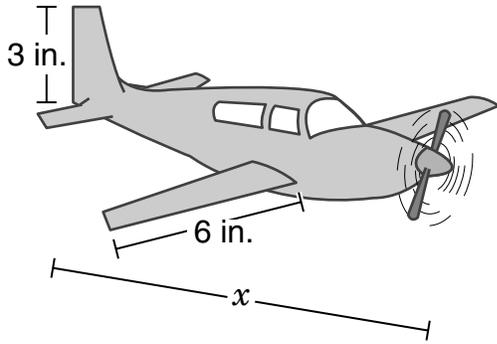
Which is closest to the length of the walkway?

- A 36 ft
B 24 ft
C 17 ft
D 13 ft
- 18 A retail store had total sales of \$436, \$650, \$530, \$500, \$650, \$489, and \$423 last week. Which measure of data would make the store's sales last week appear the most profitable?
- F Mode
G Median
H Mean
J Range

- 19 A software company employs 450 workers. It plans to increase its workforce by 8 employees per month until it has doubled in size. Which equation can be used to determine m , the number of months it will take for the company's workforce to double in size?

- A $8m + 450m = 900$
B $2m + 450 = 900$
C $2(8m + 450) = 900$
D $8m + 450 = 900$

- 20 Roderick is building a model of an actual airplane with a length of 20 feet.



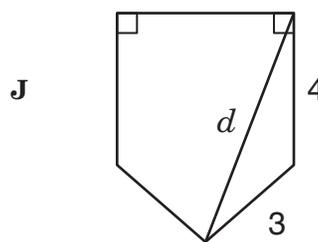
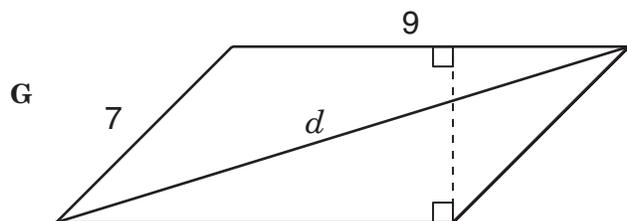
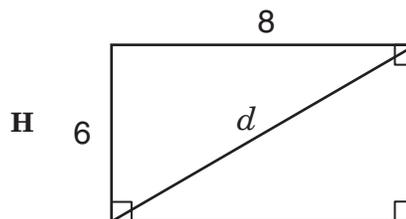
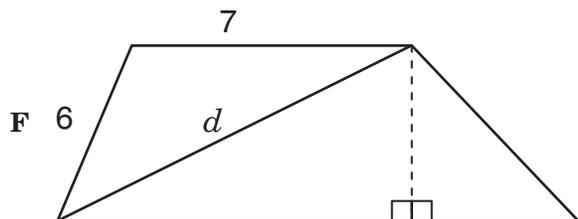
What other information is necessary in order to find x , the length of the model airplane?

- F The ratio of the length of the model airplane's tail to the length of its wing
- G The speed of the model airplane
- H The scale factor used
- J The model airplane's wingspan

- 21 Sheila made a scale drawing of a room. The actual room has a width of 16 feet and a length of 24 feet. Her drawing has a length of 3 inches. What is the width, in inches, of the scale drawing of the room?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

- 22 Line segment d is a diagonal in each polygon shown below. Which drawing shows enough information to find the length of line segment d ?



- 23 To make a certain shade of orange paint, Calvin must add 20 ounces of yellow paint to every 50 ounces of red paint. If he uses 200 ounces of red paint, which proportion can he use to find x , the number of ounces of yellow paint he should add to get the shade of orange he wants?

- A** $\frac{20}{50} = \frac{x}{200}$
- B** $\frac{30}{20} = \frac{x}{200}$
- C** $\frac{20}{x} = \frac{200}{30}$
- D** $\frac{50}{x} = \frac{200}{20}$

24 Mr. Johnson is considering renting an office that has 325 square feet of space. The rent is \$1,300 per month. A larger office in the same building is available for \$2,100 per month at the same rate per square foot as the smaller office. What is the area of the larger office?

- F** 525 ft²
- G** 1,625 ft²
- H** 3,400 ft²
- J** 840 ft²

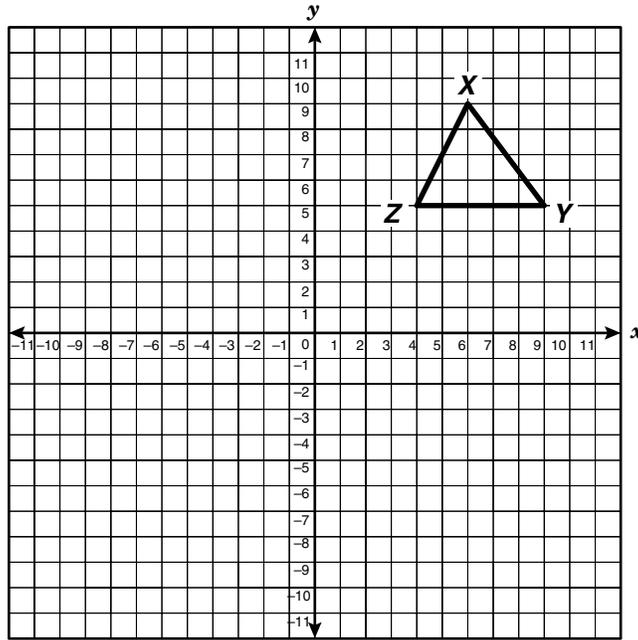
25 Which fraction is between $\frac{2}{3}$ and $\frac{3}{4}$?

- A** $\frac{1}{2}$
- B** $\frac{3}{5}$
- C** $\frac{5}{7}$
- D** $\frac{7}{8}$

26 Mr. Thomas is framing a 28-by-40-foot area for a concrete slab. If the concrete company charges \$120.00 per cubic yard of concrete, what other information is needed in order to find c , the cost of the concrete slab?

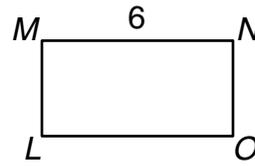
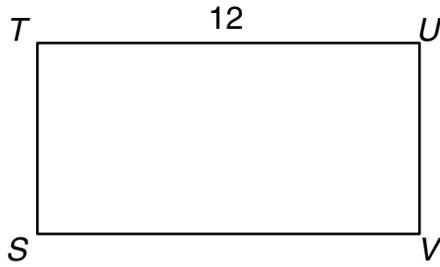
- F** The area of the slab
- G** The thickness of the slab
- H** The perimeter of the slab
- J** The price per cubic foot of concrete

27 If $\triangle XYZ$ is translated 8 units to the left and 3 units down, what are the coordinates of point Y' ?



- A (9, 5)
- B (-2, 6)
- C (1, 2)
- D (-4, 2)

- 28 Rectangle $STUV$ is similar to rectangle $LMNO$.



If the area of rectangle $STUV$ is 72 square units, what is the area of rectangle $LMNO$?

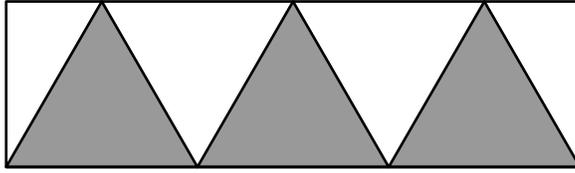
- F 36 units²
- G 24 units²
- H 18 units²
- J 12 units²

- 29 Mrs. Avery bought a 5-pound bag of white potatoes for \$4.25. If red potatoes sold for \$0.89 per pound, why did Mrs. Avery believe that she made the better buy?
- A The number of red potatoes in a 5-pound bag is greater than the number of white potatoes in a 5-pound bag.
 - B The cost for all kinds of potatoes in 5-pound bags is the same.
 - C The cost per pound of white potatoes is \$0.04 less than the cost per pound of red potatoes.
 - D The cost per pound of white potatoes is \$0.04 more than the cost per pound of red potatoes.

- 30 Fidel tosses four fair coins. What is the probability that all four coins will land heads up?

- F $\frac{1}{16}$
- G $\frac{1}{8}$
- H $\frac{1}{4}$
- J $\frac{1}{2}$

- 31 The figure below shows three shaded equilateral triangles inside a rectangle.



Which statement about this figure is true?

- A The shaded area is more than 50% of the area of the rectangle.
- B The shaded area is $\frac{3}{4}$ of the unshaded area of the rectangle.
- C The unshaded area is $\frac{2}{3}$ of the shaded area of the rectangle.
- D The shaded area is equal to the unshaded area of the rectangle.

- 32 In the sequence below, which expression can be used to find the value of the term in the n th position?

Position	Value of Term
1	0.25
2	0.5
3	0.75
4	1.0
5	1.25
n	

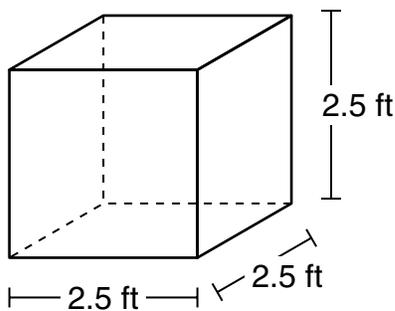
F $n - 0.75$

G $\frac{n}{4}$

H $4n$

J $n - 1.5$

- 33 Jonathan shipped a birthday gift to his grandmother in a cubical box.



Which is closest to the surface area of the box?

- A** 16 square feet
B 15 square feet
C 8 square feet
D 38 square feet

- 34 On Monday Cornelius's mother gave him school money for the week. He spent \$2.80 for lunch every day for 5 school days. He paid a \$0.75 book fine at the library and bought school supplies for \$3.50. If Cornelius had \$1.75 left at the end of the school week, which expression can he use to find the amount of money he received on Monday?

F $1.75 + 5(2.80) + 3.50 + 0.75$

G $5(2.80) + 3.50 + 0.75 - 1.75$

H $1.75 + 2.80 + 0.75 + 3.50$

J $5(2.80 + 3.50 + 0.75 + 1.75)$

- 35 On Friday the low temperature in Nome, Alaska, was -12°F , and the high temperature was 23°F . How much warmer was the high temperature than the low temperature?

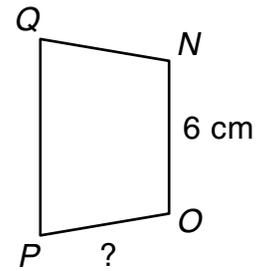
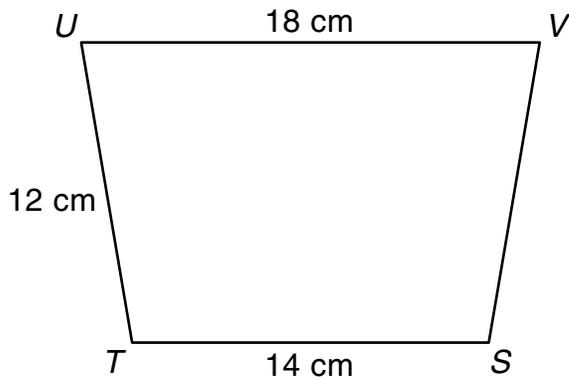
A -35°F

B -11°F

C 11°F

D 35°F

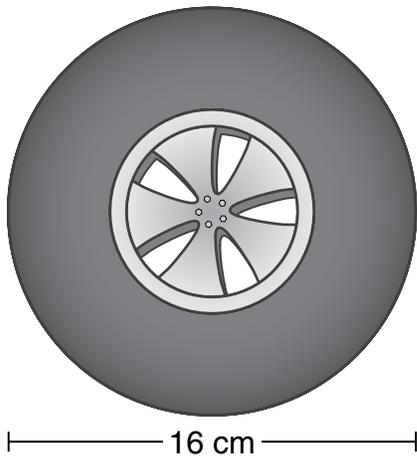
- 36 Trapezoid $STUV$ is similar to trapezoid $NOPQ$.



What is the length of \overline{OP} ?

- F** $4\frac{2}{3}$ centimeters
- G** $5\frac{1}{7}$ centimeters
- H** 28 centimeters
- J** 36 centimeters
-
- 37 The Childress family went on a camping trip. They paid \$28.00 for a 2-night stay at a campground that allows a maximum stay of 30 nights. Which equation can they use to find c , the cost of camping at this campground for the maximum number of nights?
- A** $c = 60 \cdot 56$
- B** $c = 30 \cdot 28$
- C** $c = 28 \cdot 28$
- D** $c = 30 \cdot 14$

- 38 A toy truck wheel is shown below.



Which is closest to the distance traveled during 2 full rotations of the toy truck wheel?

- F 50.2 centimeters
- G 100.5 centimeters
- H 200.9 centimeters
- J 401.9 centimeters

- 39 The expression shown below describes a pattern of numbers.

$$n(n - 1) + 4$$

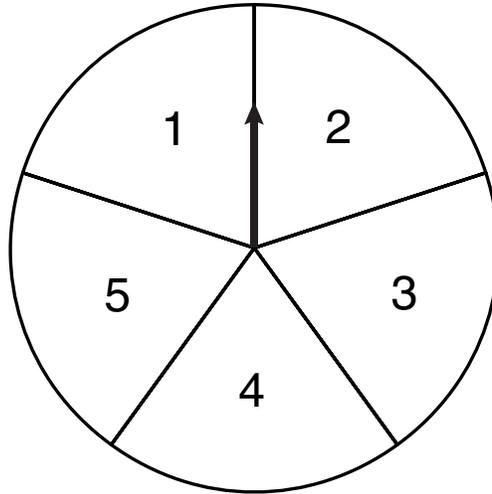
If n represents a number's position in the sequence, which pattern of numbers does the expression describe?

- A 4, 6, 8, 10, 12, ...
- B 1, 4, 6, 10, 16, ...
- C 4, 6, 10, 16, 24, ...
- D 4, 10, 18, 28, 40, ...

- 40 Carlos, Jackie, Lester, and Margie ate lunch at a restaurant. The total amount of the bill, including tax and tip, was \$44.60. Carlos paid \$15.00, Jackie paid $\frac{1}{4}$ of the bill, Lester paid 20% of the bill, and Margie paid the rest of the bill. Who paid the greatest part of the bill?

- F Carlos
- G Jackie
- H Lester
- J Margie

41 Valdemar has a spinner like the one shown below.



Valdemar would like to increase the chances of the following events:

- Spinning an even number
- Spinning a number less than 4
- Spinning the square root of 9

Valdemar decides to remove the 5 from the spinner. Which statement best supports his reasoning?

- A The number 5 takes up more space on the spinner.
- B Spinning the number 5 has the greatest probability.
- C The number 5 is the greatest number.
- D Spinning the number 5 is not a desired event.

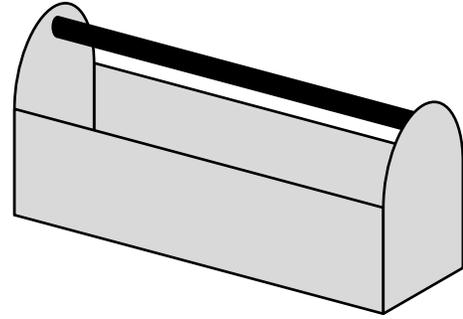
42 Mr. Harrington wrote four irrational numbers on the board and asked Jared to choose the number closest to 3. Which irrational number should Jared choose?

- F $\sqrt{6}$
- G $\sqrt{10}$
- H $\sqrt{12}$
- J $\sqrt{14}$

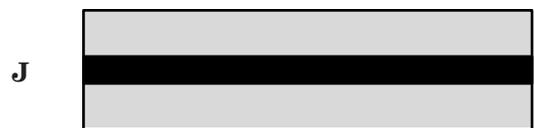
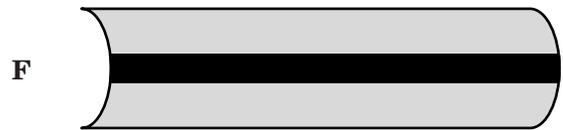
43 The sun's core temperature reaches close to 2.7×10^7 degrees Fahrenheit. Which of the following represents this temperature in standard notation?

- A 270,000°F
- B 2,700,000°F
- C 27,000,000°F
- D 270,000,000°F

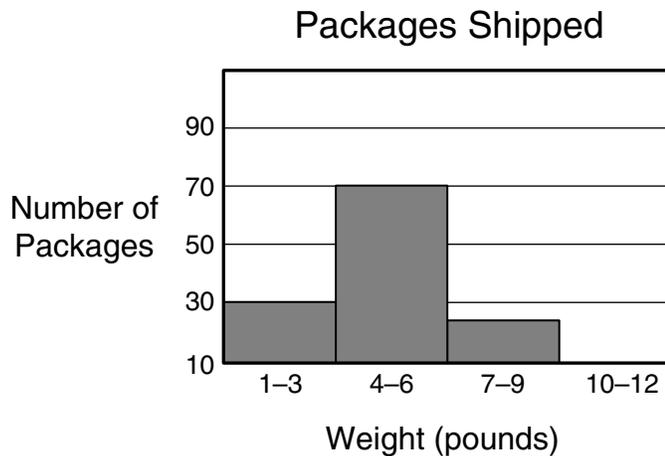
44 The picture below shows a toolbox with a black handle.



Which drawing best represents a top view of the toolbox?



- 45 The graph below displays the weights of packages shipped from a post office on Tuesday.



According to information in the graph, no 10- to 12-pound packages were shipped. Which statement explains why this representation may be inaccurate?

- A The scale for the number of packages does not start at 0.
- B The vertical bars are too wide.
- C The intervals are too small.
- D The scale for the number of packages goes higher than 90.

- 46 Mr. Polanco purchased 12 boxes of tile. Each box contained 15 square tiles. If Mr. Polanco wants to tile the wall 14 tiles high and 13 tiles long, which procedure can he use to determine whether he has enough tiles to complete the job?

- F Multiply 14 by 12
- G Subtract 14 from 15 and then multiply by 12
- H Multiply 12 by 15 and then compare the product with the product of 13 and 14
- J Add 15 and 14 and then multiply by 13

47 A gift basket contains $6\frac{2}{3}$ ounces of chocolate candy, $4\frac{1}{2}$ ounces of hard candy, and 4 ounces of dried fruit. What is the total weight of the contents of the gift basket?

A $11\frac{1}{6}$ oz

B $14\frac{1}{2}$ oz

C $14\frac{3}{5}$ oz

D $15\frac{1}{6}$ oz

48 The Wright Pen Company sells 3-pen packages for \$1.50. Which company sells pens for the same price per pen?

F Jones Pen Company
4-pen packages for \$2.50

G Cavazos Pen Company
5-pen packages for \$3.00

H Smother Pen Company
7-pen packages for \$3.50

J Nottingham Pen Company
9-pen packages for \$5.00

49 The probability of a table-tennis ball being defective is $\frac{1}{10}$. About how many balls would be defective in a case of 725 table-tennis balls?

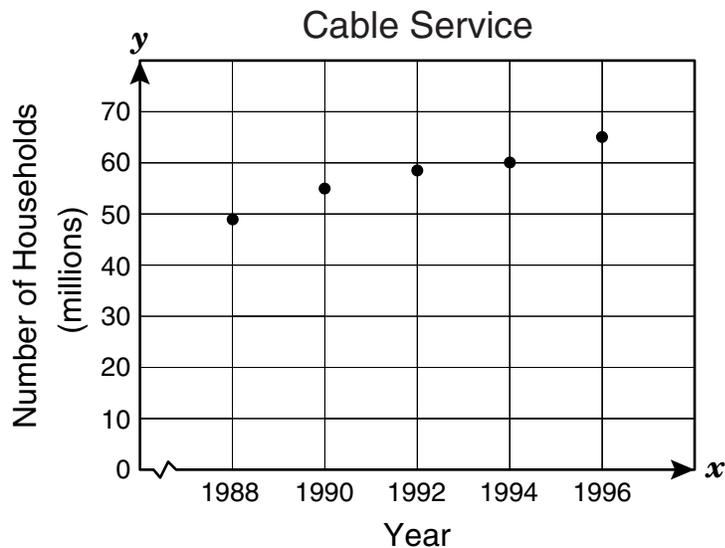
A 1

B 7

C 73

D 80

- 50 The scatterplot below shows the number of households with cable television service during certain years.



Which statement best describes the relationship on the scatterplot?

- F** The number of households with cable service increased over time.
- G** The number of households with cable service decreased over time.
- H** The number of households with cable service remained the same over time.
- J** The number of households with cable service could not be determined over time.



READING

Read this selection. Then answer the questions that follow it.

Queen of Scream

1 Jennifer “Juniper” Jairala grips the rail of one of the water rides at Universal Studios’ new theme park in Osaka, Japan. She knows the drop is coming, but she still feels a thrill as the boat she is on plunges over the edge. Unlike most people who ride the roller coasters and water rides at the new theme park, Jairala is more than just a casual observer. As one of the park’s ride-show engineers, Jairala helps design, assemble, and test some of the scariest rides in the world. You might even call her the Queen of Scream.

My notes about what I am reading



Engineers put the Jurassic Park ride at Universal Studios Japan through many test rides before the first passengers were permitted to ride.

2 How did Jairala get what she calls her dream job? She says it all started with a childhood interest in how things work. While she was growing up in Chicago, Jairala was

Photograph courtesy of © Reuters NewMedia Inc./CORBIS.

constantly trying to fix anything in her house that broke. Moreover, she was a good student. She says that when people asked her what her favorite subject was, she would reply, "All of them." After graduating from high school, Jairala went to Cornell University, where she earned a bachelor's degree in mechanical engineering. Now she works for one of the biggest theme-park corporations in the world.

3 Although the theme park where Jairala works has been open for approximately a year, she has worked there for about two years. Before the park opened, she oversaw the construction of the rides. Although customers are hoping to be scared on the rides, the park obviously doesn't want to really imperil its customers. It was Jairala's job to inspect the rides at each step to make sure they were being built correctly. The rides go through many tests before any human passenger is allowed to climb aboard. For example, the roller coasters are first tested with sandbags that each weigh about the same as a human passenger. In addition, Jairala and other engineers took numerous test rides. Jairala enjoys the thrill of testing a new ride, but she keeps safety foremost in mind.

4 Roller-coaster engineers like Jairala say the best part of designing roller coasters is turning fear into fun. It all starts with illusion. Amusement-park designers and engineers always try to make roller coasters look and feel as frightening as possible without the rides actually being dangerous. They sometimes give the coaster an aged appearance. They might play strange noises over the sound system or run the coasters through dimly lit passages. Then most coasters tantalize the rider with a slow climb to the top before the first drop. Wooden coasters have a natural, but safe, tendency to clickity-clack, shake, tremble, and whine as the cars climb. It's all part of what makes the coasters so much fun. Though coasters usually travel slower than the speed limit on most highways, they seem faster. The closeness of things flashing by and the jerky, rough ride make passengers feel as if the roller coaster is rocketing out of control. Not all of the coaster's effects are an illusion. On some drops passengers are subjected to forces of gravity (called G's) more than four times as strong as normal. Loops and corkscrews turn the riders around, literally forcing the breath out of them.

5 There is much more to planning amusement-park rides than just figuring out how to scare people. Roller-coaster engineers must keep other factors in mind when building a ride. They must build a ride that is scary but will entice customers to keep coming back. It wouldn't be good for park

business if a rider rode a coaster once and decided never to ride it again. Therefore, designers look for a balance.

My notes about what I am reading



- 6 Jairala and other engineers must also pay attention to the length of the ride. The physical forces of gravity determine how long the coaster's momentum will keep it going. No matter how tall the coaster is, rides will usually last only about a minute after the first drop begins. Customers who sometimes must wait for more than an hour to ride want their money's worth. With this in mind, engineers sometimes extend the length of a ride by using machinery to pull the coaster back up for more drops.
- 7 On the other hand, rides can't last too long. Engineers like Jairala must keep in mind how many thrills passengers can take in the space of a few minutes. It's also important to limit the length of a ride so that people aren't kept waiting. Theme parks prefer that customers purchase snacks and souvenirs rather than wait in a line. Shorter waits also encourage customers to return to the park in the future. In addition, engineers must consider how easy it is to get into and out of the rides and how to best accommodate large groups that want to ride together.
- 8 Now that Universal Studios Japan is open, Jairala spends most of her time testing and checking rides to

Photograph courtesy of © Kelly-Mooney Photography/CORBIS.

ensure that they are working properly and are safe. However, she is still able to help with the design of the new rides that are constantly being planned for the park. While Jairala hopes to continue building thrill rides, she also wants to continue her education. She plans to someday go back to school for an advanced college degree. Right now, though, she's happy to see another part of the world and work in her dream job.

My notes about what I am
reading

- 1 What is paragraph 2 mainly about?
- A Jairala's favorite subject in school
 - B The school where Jairala went to college
 - C How Jairala became a roller-coaster engineer
 - D The theme park where Jairala works
- 2 What does the word imperil mean in paragraph 3?
- F Put in danger
 - G Treat differently
 - H Put in training
 - J Make angry
- 3 From information in this article, the reader can conclude that most roller coasters —
- A travel at the same speed
 - B are actually dangerous to ride
 - C travel almost as fast as a rocket
 - D take several years to plan and build
- 4 Designers sometimes give roller coasters an aged appearance in order to —
- F make maintenance easier
 - G make the ride seem frightening
 - H show customers that the ride has been popular for a long time
 - J make customers believe the coasters have been tested many times

- 5 Which of these is the best summary of this article?
- A Jennifer Jairala works as a roller-coaster engineer for one of the largest theme-park corporations in the world. Jairala studied engineering at Cornell University. The theme park where she works is in Osaka, Japan, and has been open for only about a year.
 - B Roller-coaster engineers such as Jennifer Jairala try to make roller coasters scary but fun. They start trying to scare customers before they even get on the roller coaster. They build roller coasters to look more dangerous than they really are.
 - C Jennifer Jairala grew up in Chicago. After she graduated from high school, she went to college and earned a degree in mechanical engineering. She now works for one of the largest theme-park corporations in the world.
 - D Universal Studios Japan roller-coaster engineer Jennifer Jairala helps design and test roller coasters and other amusement rides. Jairala and other engineers design rides to be scary but safe. They also want the coasters to be fun and easy to ride.
- 6 What did Jairala have to do before she got a job as a roller-coaster engineer?
- F Work as an engineer for a year
 - G Earn an engineering degree
 - H Take a test ride on a coaster
 - J Design a new roller coaster

- 7 The reader can conclude that Jairala —
- A never rode roller coasters as a child
 - B worked as a ride operator during high school
 - C doesn't really enjoy testing rides
 - D works on other types of rides besides roller coasters
- 8 According to the passage, why do engineers sometimes try to extend the length of a ride?
- F To allow more customers to ride at one time
 - G To keep customers from riding more than once
 - H To allow customers to catch their breath
 - J To ensure that customers are satisfied
- 9 The author organizes the article by —
- A describing a day at work for a roller-coaster engineer
 - B comparing and contrasting different roller coasters
 - C explaining different aspects of a roller-coaster engineer's job
 - D describing a theme park from the entrance to the exit

- 10 Which sentence from this article supports the idea that Jairala has always liked working with machines?
- F *Unlike most people who ride the roller coasters and water rides at the new theme park, Jairala is more than just a casual observer.*
 - G *While she was growing up in Chicago, Jairala was constantly trying to fix anything in her house that broke.*
 - H *While Jairala hopes to continue building thrill rides, she also wants to continue her education.*
 - J *As one of the park's ride-show engineers, Jairala helps design, assemble, and test some of the scariest rides in the world.*
- 11 Read this part of an outline of information from the article.

- A. Jairala's duties at the theme park
1. Help design and build coasters
 2. Test coasters for safety
 3. _____

Which detail belongs on the blank line?

- A Attend college courses
- B Make scary noises during the ride
- C Check that coasters continue to work properly
- D Prevent customers from riding too often

Together Forever

1 Orestes Lorenzo stared out at the darkening waters of the Caribbean. “It can’t be much farther,” he thought, straining to see the coast of Cuba, his homeland. Now he was returning, but only briefly. He planned to land his small plane on a highway near the coast just long enough to rescue his wife and two sons and return with them to the United States and freedom.

My notes about what I am
reading

2 There it was: the slopes of Pan de Matanzas! “They’ve spotted me by now,” Lorenzo thought. He had flown the last half hour just a few feet above the ocean, hoping to avoid the Cuban Air Force’s radar. But this close to the coast, the radar would have detected him even at that height. He imagined the air force frantically responding to an alert that an unidentified aircraft was approaching the coast. As a member of the Cuban Air Force for more than 10 years, he felt sure that officers had already ordered an air-defense missile to be fired. Unless he could pick up his family quickly and get far enough away, he knew that his small plane could be obliterated at any moment. His heart pounded. Everything needed to go perfectly.

3 As Lorenzo’s plane raced toward the coast, he thought back to the last time he had seen his homeland. Almost 21 months before, he had been in another plane—a Cuban Air Force fighter jet. That day he had made the most difficult decision of his life: he left Cuba for the United States. Angry and disillusioned by a government he felt was corrupt, he had decided to risk everything for a new beginning. After discussing it with his wife Vicky, he decided that he should fly his plane to the United States to begin a new life. Lorenzo and his wife felt that the Cuban government would be forced to allow her and the children to join him in the United States. Unfortunately, the Cuban government refused, even after the president of the United States asked. Angry with Lorenzo for leaving with a government plane, Cuban leaders dared Lorenzo to come back and get his family. Realizing that the Cuban government would never allow his family to leave, Lorenzo decided to do just that.

4 Lorenzo slowed the plane and looked for the highway alongside El Marney Beach. Just the night before he had sent a coded message telling his wife to meet him at a prearranged place. “Are they there?” he wondered nervously. “Have they had problems?” So many things could have gone awry. As he looked for the highway, he

worried. It would be impossible to land if the traffic were too heavy. At last he spotted the narrow strip of pavement running next to the coast. Flying low over cars and trucks, he searched ahead for his family. Then he spotted three orange dots. They had made it! Lorenzo prepared to land, but a bus and a small white car were in his way. He flew low over the car, nearly scraping it with his landing gear. Then he saw a new problem, a large rock. Lorenzo started to steer around it, but a traffic sign blocked his way. He couldn't risk clipping the plane's wing on that sign. The plane slammed down, somehow missing the rock, and Lorenzo hit the brakes.

- 5 Lorenzo looked behind him. He saw his wife and two sons desperately running for the plane. He gripped the steering control and slowly turned the plane around. Traffic on the highway had stopped all around him. The bus driver looked at Lorenzo with wide eyes. To Lorenzo it seemed as if his wife and sons were moving in slow motion. He couldn't afford to get out and help them. Finally, they were there. "Watch the propellers," he thought, turning the plane sideways to make it easier for them to get inside. He pulled open the door, and his 11-year-old son Reyniel scrambled aboard. "Dad!" he screamed, hurrying into the back, his face full of fear and joy.
- 6 "Daddy!" The voice of his six-year-old filled the cabin next. Lorenzo felt Alejandro's small arms hugging him. He glanced at his watch as his son climbed into the backseat with his brother. The seconds seemed like minutes.
- 7 Finally Lorenzo's wife climbed into the plane. Her eyes were wet. Lorenzo felt tears filling his eyes too as he thought of the nearly two years she had endured after he had left. Lorenzo reached for the door to close it. It was jammed and wouldn't close! He tried again, but it was still stuck.
- 8 "Calm yourself, calm yourself!" he told himself. He grabbed the door with both hands, and finally it closed. "We're on our way!" he shouted. Gunning the engine, Lorenzo raced the plane back down the highway. He looked at his watch. It hadn't quite been a minute since he had landed. Lorenzo steered frantically around oncoming cars. A curve was just ahead in the highway. He had to get the plane into the air before he reached it, but he wasn't going fast enough. He pulled the controls all the way back, and the plane slowly struggled into the sky, skimming the tops of the palm trees that lined the highway. "We did it!" he shouted. "We did it!" But Lorenzo knew they weren't safe yet. They needed to get farther away.

9 When they had reached the 12 1/2-mile point and missiles were no longer a danger, Lorenzo cried again, this time with certainty, "We did it! We're together forever."

My notes about what I am reading

10 "Forever!" his wife repeated.

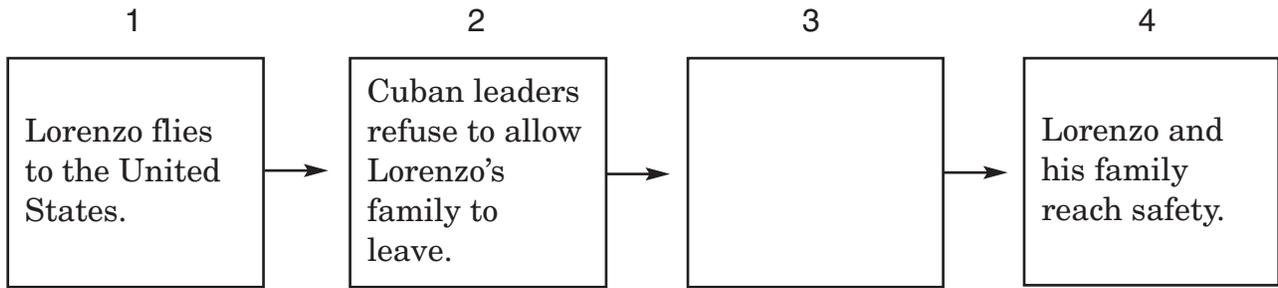


Orestes Lorenzo and his family after Lorenzo rescued them and returned to the United States on December 19, 1992.

Photograph courtesy of © Reuters NewMedia Inc./CORBIS.

12 Look at the following diagram of events from this selection.

Together Forever



Which of the following belongs in the empty box?

- F** Lorenzo and his family celebrate their trip.
- G** The U.S. president asks Cuba to allow Lorenzo's family to join him in the United States.
- H** Lorenzo flies a small plane to the coast of Cuba and picks up his family.
- J** Lorenzo discusses with his wife what they should do.

13 To the Lorenzos, the United States is a symbol of —

- A** family
- B** government
- C** freedom
- D** beauty

14 Why did Lorenzo feel tears filling his eyes when his wife finally got into the plane?

- F** He hadn't thought that his wife would return to the United States with him.
- G** He thought the plane might be shot down by a missile.
- H** He knew his wife had suffered greatly since he left her behind.
- J** He was angry at his wife for taking so long to get into the plane.

- 15 Why did Lorenzo fly his airplane just a few feet above the ocean?
- A To make it hard for missiles to hit his plane
 - B To make it easy for his family to see the plane
 - C To avoid being spotted by the air force's radar
 - D To make a quicker landing

- 16 Why is paragraph 3 important to the article?
- F It tells how long it had been since Lorenzo had seen his family.
 - G It describes the government in Cuba.
 - H It shows that the Cuban government didn't want Lorenzo to return to Cuba.
 - J It explains why Lorenzo had to return to Cuba.

- 17 Which information from the article shows that Lorenzo's rescue plan was risky?
- A The highway was too close to the coast.
 - B He had taken an air force jet.
 - C Cuban leaders dared him to return.
 - D The door of the airplane was stuck.

- 18 The reader can conclude that Lorenzo —
- F had told his family to wear orange clothes
 - G knew the bus driver on the highway
 - H was flying the same plane on both flights
 - J had landed on the highway many times before

- 19 The mood of this article is —
- A sad and eerie
 - B adventurous and predictable
 - C calm and hopeful
 - D suspenseful and triumphant

- 20 The danger to the Lorenzos wasn't over even after they took off, because —
- F missiles could still have reached the plane
 - G the plane might still have been spotted by radar
 - H people on the highway could have reported what they had seen
 - J the plane might have been damaged during landing

- 21 Which sentence from the article supports the idea that Lorenzo’s air force experience helped him plan the rescue?
- A *It would be impossible to land if the traffic were too heavy.*
 - B *At last he spotted the narrow strip of pavement running next to the coast.*
 - C *“It can’t be much farther,” he thought, straining to see the coast of Cuba, his homeland.*
 - D *He had flown the last half hour just a few feet above the ocean, hoping to avoid the Cuban Air Force’s radar.*

- 22 What is the most likely reason the author wrote the article?
- F To persuade Cuba to allow Lorenzo’s family to leave
 - G To explain why Lorenzo left his family behind
 - H To compare the Cuban and U.S. governments
 - J To describe a family’s daring escape from Cuba

- 23 Which of these is the best summary of this article?
- A Orestes Lorenzo flew a Cuban fighter jet to the United States to start a new life. When Cuban leaders refused to allow Lorenzo’s family to join him, he decided to fly back to Cuba. He landed a small plane on a highway, where he rescued his family and returned with them to the United States.
 - B Orestes Lorenzo had been in the Cuban Air Force for more than 10 years. One day he made the most difficult decision of his life. Lorenzo decided to risk everything to fly his Cuban Air Force fighter jet to the United States and begin a new life.
 - C Orestes Lorenzo landed his small plane on a highway near El Marney Beach in Cuba. The highway was busy, and Lorenzo almost wrecked the plane during the landing. His wife and sons ran to the plane and got inside. Lorenzo took off again, dodging oncoming traffic and barely clearing the palm trees that lined the side of the highway.
 - D Orestes Lorenzo knew the Cuban Air Force would spot his small plane as he neared the coast of Cuba. The former officer in the Cuban Air Force knew that the military would be frantically responding to an alert about an unidentified aircraft. Soon the military would order that a missile be fired to stop Lorenzo’s plane.

I Have Crossed Famous Rivers

1 A metallic chatter rose from hundreds of cameras as Nelson Mandela walked toward the gates of Victor Verster Prison in South Africa. Mandela had been told to expect a large crowd, but he was still startled by what he saw. Outside the gates thousands of supporters waited along with reporters and television crews. Freedom was just 50 feet away. Mandela moved forward, but each step seemed to take him back.

My notes about what I am
reading

2 Mandela had been imprisoned for more than 27 years. Like all black South Africans, he had lived with discrimination his entire life. South Africa's white minority ruled the country, though they were only 25 percent of the population. The government of South Africa felt that white and black citizens should be kept apart. Mandela had attended black-only schools, lived in black-only communities, and traveled on black-only buses and trains. He had never been allowed to vote. As a young man Mandela had joined the African National Congress (ANC), an organization that fought for the rights of black South Africans. Being a knowledgeable attorney, he soon became one of the ANC's leaders.

3 When Mandela was 30 years old, the white-controlled National Party won control of the South African government. Though South Africa had been racially segregated for years, the National Party began to further limit the rights of black citizens. A new policy of apartheid ("apartness") was adopted. Laws were created to ensure that South Africa's wealth and power remained under white control. These laws classified all citizens by race and outlawed marriages between different races. They also specified where blacks could live and which jobs they were allowed to have. Black South Africans had to carry identification passbooks at all times.

4 The ANC protested these laws by calling for strikes. South Africa depended greatly on the labor of its black citizens, and ANC leaders hoped that by refusing to work, blacks could force a change in the laws. The government, however, forcefully crushed the protests. Black organizations, including the ANC, were banned, and future protests were prohibited. When Mandela continued to organize protests, he was arrested, convicted of treason, and sentenced to life in prison.

- 5 In prison Mandela continued the struggle. As more people learned about apartheid, the South African government faced increasing criticism. Most foreign governments refused to trade with South Africa until its laws were changed. The South African government eventually offered to release Mandela if he agreed not to organize protests, but Mandela refused. Opposition continued to grow until 1989, when South African president F. W. de Klerk revoked the oppressive laws and began to end apartheid. He also granted political prisoners, including Mandela, their unconditional release.
- 6 Now just seconds from freedom, Mandela's thoughts were crowded with memories of his long struggle. He remembered the victories and the defeats and the friends of all races he had made—he had even made friends with some of his guards. To honor the wisdom of age and experience, his people had a saying: *I have crossed famous rivers*. Mandela's spirit swelled as he crossed into freedom and thrust his fist upward. The roar of the crowd was deafening.
- 7 *Nelson Mandela's release was a significant event that marked the end of the apartheid in South Africa. Mandela was elected president of South Africa four years later.*



Nelson Mandela looks out the window from his cell at Victor Verster Prison in South Africa.

Photograph courtesy of © David Turnley/CORBIS.

Why Do You Push Us Around?

- 1 Having skipped an earlier bus that was too crowded, Rosa Parks was relieved to see plenty of empty seats on the next Montgomery city bus that came to her stop. She walked past several empty seats and sat down just past the movable sign that read “Colored.”
- 2 The year was 1955. Although African Americans had been free from slavery for 90 years, Montgomery, Alabama, enforced some of the country’s strictest segregation laws. Meant to keep African Americans separated from whites, these so-called Jim Crow laws angered Parks. A few years earlier she had joined the National Association for the Advancement of Colored People (NAACP), an organization that tried to protect African American rights. The NAACP had convinced the U.S. Supreme Court that it was unconstitutional to separate public school children based on race.

My notes about what I am reading



- 3 The bus Parks was riding on began to fill up. At one stop four white passengers boarded. Three took seats at the front, and one man grabbed the rail to ride standing.
- 4 The driver twisted around in his seat. Looking at Parks and the other African American passengers, he barked, “Move, y’all. I want those seats.” Parks’s eyes widened. It was James F. Blake, the same man who had once before ordered her off a bus he was driving. Blake’s scowl sent

Parks's mind tumbling back to that incident 12 years earlier.

My notes about what I am reading

- 5 Montgomery bus drivers used their own discretion in how they enforced the city's segregation rules. Some disregarded the rules. Other drivers, including Blake, required African Americans to pay their fare at the front of the bus, exit, and then reboard at the back to find a seat. Blake had a reputation of driving off before riders could reboard the bus.
- 6 On that day 12 years earlier in 1943, Parks had refused to exit and reboard at the rear because the back aisle was already crowded with standing passengers. When Blake insisted, Parks responded that she was already on the bus and didn't understand why she had to get off just to get back on. Blake ordered her off. Rather than disgrace herself by obeying his petty demand, Parks left, vowing to never again ride a bus driven by Blake. But this day she hadn't noticed who the driver was.



- 7 "Y'all better make it light on yourselves and let me have those seats," Blake growled when nobody moved. Since African Americans weren't allowed to sit in the same row as white passengers, Blake ordered everyone in the row to stand. Finally the two women across the aisle from Parks stood. Then the man next to Parks stood too. "Are you going to stand up?" Blake asked Parks, who replied that she wasn't. "I'm going to have you arrested," Blake stammered.

8 Parks didn't want to go to jail, but she had had enough. She wanted to be treated like a human being. "You may do that," she replied calmly. The police arrived within minutes. One policeman, F. B. Day, asked Parks why she had refused to stand. Parks replied with a question that Day couldn't answer.

9 "Why do you push us around?"

10 Day shrugged. "I don't know, but the law is the law, and you're under arrest."

11 *Rosa Parks's arrest led African Americans to come together in Montgomery to refuse to ride buses citywide. This protest helped give rise to the Civil Rights movement. The U.S. Supreme Court later ruled that Alabama's segregation laws were unconstitutional.*

Photographs courtesy of © Bettmann/CORBIS.

**Use “I Have Crossed Famous Rivers” (pp. 48–49)
to answer questions 24–27.**

24 Read this dictionary entry for the word strike.

strike \ˈstriːk\ *n* **1.** a stoppage of work or other activities to protest something **2.** a pitched ball that is thrown perfectly **3.** a military attack **4.** a discovery that is lucky or fortunate

Which definition represents the meaning of strikes as used in paragraph 4?

- F** Definition 1
- G** Definition 2
- H** Definition 3
- J** Definition 4

- 25** Why was Mandela forced to travel on black-only buses and trains?
- A** South Africa’s leaders believed that black citizens and white citizens should be kept separated.
 - B** It cost too much to ride the same trains and buses as white citizens.
 - C** Other buses and trains weren’t allowed into black-only communities.
 - D** Mandela was protesting South Africa’s new policy of apartheid, which was unfair to black South Africans.

26 Paragraph 2 is mainly about —

- F** the organization Mandela joined to fight for the rights of black South Africans
- G** traveling on black-only buses and trains
- H** the discrimination faced by Mandela and other black citizens in South Africa
- J** why Mandela had never been allowed to vote

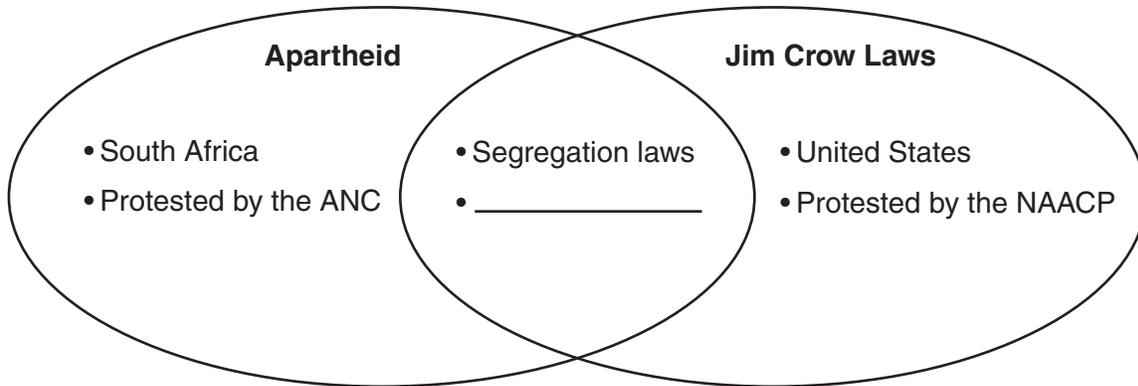
- 27** What can the reader infer from the actions of South Africa’s white minority?
- A** Most of them were opposed to South Africa’s policy of apartheid.
 - B** Many were members of the ANC and other organizations formed to help black South Africans.
 - C** They organized protests to have Nelson Mandela released from prison.
 - D** They feared they would lose power if blacks were allowed to vote.

**Use “Why Do You Push Us Around?” (pp. 50–52)
to answer questions 28–32.**

- 28** Why did Blake order four African American passengers to stand in order to make room for one white passenger?
- F** He expected more white passengers to board the bus at the next stop.
 - G** The African American passengers argued about who should stand.
 - H** The white passenger wanted to make room for his entire group.
 - J** African Americans weren't allowed to sit in the same row with white passengers.
- 29** Parks's main conflict in this story is that she —
- A** didn't want to be on a bus driven by Blake
 - B** thought that she shouldn't have to give up her bus seat
 - C** didn't want Blake to have her arrested
 - D** didn't want to have to ride on a crowded bus
- 30** What is the mood of paragraphs 8 and 9?
- F** Bewildered
 - G** Hostile
 - H** Amused
 - J** Determined
- 31** Why did Parks vow never again to ride a bus driven by Blake?
- A** She thought that Blake was an extremely dangerous driver.
 - B** She did not want Blake to recognize her.
 - C** She thought Blake might have her arrested.
 - D** She did not want to be humiliated by Blake.
- 32** The reader can conclude that the arrest of Rosa Parks —
- F** encouraged African Americans to obey Alabama's segregation laws
 - G** later caused Blake to lose his job as a bus driver
 - H** angered African Americans in Montgomery
 - J** convinced bus lines in Montgomery to change their segregation policies

Use “I Have Crossed Famous Rivers” and “Why Do You Push Us Around?” to answer questions 33–35.

33 Read this diagram of information from the selections.



Which detail belongs on the blank line?

- A** Strictly enforced in Alabama
- B** Protested by Nelson Mandela
- C** Discriminated against black citizens
- D** Ended by F. W. de Klerk

34 An idea common to both selections is —

- F** fighting discrimination
- G** obeying the law
- H** helping others
- J** the right to vote

35 What is one difference between the two selections?

- A** Mandela’s story is about discrimination, but Parks’s story is not.
- B** Parks’s story deals with segregation, but Mandela’s story doesn’t.
- C** Mandela’s story is about protesting, but Parks’s story is about breaking the law.
- D** Parks’s story tells about her arrest, but Mandela’s story tells about his release.

The Best

My notes about what I am
reading

- 1 “O.K., that’s enough,” Dr. Clifford said, scribbling something in his notebook. Chris slowly walked away from the game station. He wondered what could have gone wrong. He had played this video game thousands of times. He was supposed to be the best. So why couldn’t he win?
- 2 All around him the scientists at Harris Laboratories checked data and made adjustments. For more than five years they had been working on building a robot that could do everything a human teenager could do, only better. Now they thought they had finally succeeded. Chris looked across the room at his opponent—Sam, they called him. It didn’t seem possible to Chris. He wondered how something so clumsy and simple could keep beating him.
- 3 “Let’s get ready for the next test,” Dr. Clifford called. “Fifteen minutes.”
- 4 Chris walked back over and sat down at the game station. Sam was already seated across from him.
- 5 “Good luck,” Sam said. The words caught Chris’s attention. Sam had never spoken to him before. “You’re a good player, the toughest competition they’ve ever had for me here.”
- 6 “But I’m supposed to win,” Chris said. That was the thought that kept racing through his mind. He had played the game for more than two years. He hadn’t thought it was possible that he could lose. It was still hard for him to believe what was happening. “Will you answer a question?” Chris asked.
- 7 “What is it?” Sam replied.
- 8 “How do you do it?” Chris asked. Sam stared back with a puzzled look. “How can you be so fast? How can you react to the game as quickly as you do?” Chris continued.
- 9 Sam seemed to consider the questions a long time before answering. “I’m not sure,” he finally answered. “But I’ve played this game thousands of times. I seem to know what the game will do before it happens.”
- 10 “That’s impossible,” Chris said. He knew the game had millions of possible combinations and that each one was selected at random. “There’s no way you could have memorized the game program. There are too many possibilities even for a computer to analyze.”

- 11 “It’s not exactly memory the way you think of it,” Sam said. “It’s something else. It’s complicated. You wouldn’t understand.”
- 12 “Thirty seconds,” Dr. Clifford called. Technicians and scientists scurried about, making last-second preparations for the next game. “Twenty seconds,” Dr. Clifford called, beginning a countdown.
- 13 “How could I not understand?” Chris thought. He gripped the controls of the game. This time he would show Sam. This time he would prove that he was superior. Dr. Clifford gave the signal, and the final game started. Chris’s eyes scanned the screen. The game was a simulated space adventure. The players had to destroy make-believe meteors before the huge rocks collided with their ships. Chris reacted quickly as the game’s speed increased. His point total climbed higher and higher. He had never played so well.
- 14 Chris looked across the game station. As usual, Sam was impassive. He held the controls and responded calmly. Sam never showed any signs of nervousness or concern during the games. His eyes fixed straight ahead, he seemed to stare through the machine instead of at it.
- 15 “Stop,” Dr. Clifford called at last. The scientists swarmed around the game station again. They checked the score, they checked the game, and they even checked both Chris and Sam. The scientists were all talking excitedly and joking with Sam. One of them handed a large clipboard of papers to Dr. Clifford. Dr. Clifford studied the papers for a long time, sometimes stopping to write something down on them. “Well, we’re definitely making progress,” he told the group after making a notation on the last report. “I’m very pleased with today’s test results. I think we’re through for now.”



- 16 Chris noted his score. It was much higher than he had ever scored in the past. It was even higher than Sam had scored in the games they had played against each other earlier that day. He looked across the game station at Sam's score. Sam had won again. How was that possible? There had to be something wrong with the game. One of the scientists came over and faced Chris. "You gave him a good game," the scientist said. "We didn't expect you to come as close as you did."
- 17 "I'll never beat that boy," Chris said.
- 18 "You're the most advanced CHRIS model we've ever built," the scientist replied. "You did better than any previous Custom Home Robotic Intelligence System, competing against the best player in the world."
- 19 "Yeah," Sam said, smiling from across the table. "And for a few seconds I thought you had me. I even broke my own record."
- 20 "But I'm programmed to win," Chris said. "I think faster. I move faster. My reactions are better. How could I lose?" He looked across at the human.
- 21 Sam shrugged his shoulders. "It's just a feeling I get. It's called intuition. Somehow I just know. I can anticipate what's going to happen."
- 22 "You're right," Chris said. "I don't understand." There would be more testing the next day. "It's no use," the robot's computerized brain repeated. "I'll never beat that boy. He's the best."

36 Chris is confused after finishing the game with Sam because Chris —

- F** played better than ever but still lost
- G** knows he didn't play very well
- H** doesn't want the testing to be finished
- J** can tell that Dr. Clifford is unhappy

37 What does intuition mean in paragraph 21?

- A** The ability to move extremely quickly
- B** A memory of something from long ago
- C** Knowledge gained through long periods of study
- D** A sense or feeling about something

38 The most likely reason technicians check everything thoroughly after the game is that they want to —

- F** make sure that Chris and Sam haven't broken anything
- G** make sure everything was working properly during the test
- H** make sure that neither player was cheating
- J** find ways to make the game more challenging

39 Why does Chris wonder what could have gone wrong in paragraph 1?

- A** Dr. Clifford will not let him play the video game.
- B** Chris doesn't feel like playing the game anymore.
- C** Chris thinks that Dr. Clifford is angry with him.
- D** Sam has just defeated him in the game again.

40 Paragraph 2 is important to this story because it —

- F** shows how long Chris has been playing the game
- G** explains why Chris and Sam are playing the game
- H** shows that Sam is clumsy and doesn't play very well
- J** describes the test that Sam and Chris are involved in

41 In paragraph 14, what does impassive mean?

- A** Without feeling
- B** Terrified
- C** Confused
- D** Without skill

42 What can the reader conclude about the last game that Chris and Sam play?

- F They both play better than ever before.
- G It takes much longer than their other games.
- H Chris makes a higher score than Sam.
- J It is a different game than they usually play.

43 Which sentence from this story supports the idea that Chris is tested on things besides video games?

- A *All around him the scientists at Harris Laboratories checked data and made adjustments.*
- B *For more than five years they had been working on building a robot that could do everything a human teenager could do, only better.*
- C *“There are too many possibilities even for a computer to analyze.”*
- D *One of them handed a large clipboard of papers to Dr. Clifford.*

44 The scientists want to test Chris against Sam because they want —

- F Chris to see that he isn't as good as he thinks he is
- G Sam to teach Chris how to play the game better
- H to see whether a robot can defeat the best human player
- J Chris to memorize the way Sam plays the game

45 Which sentence from the story supports the idea that Chris is improving his playing skill?

- A *It was much higher than he had ever scored in the past.*
- B *“I'm very pleased with today's test results.”*
- C *Chris reacted quickly as the game's speed increased.*
- D *This time he would prove that he was superior.*

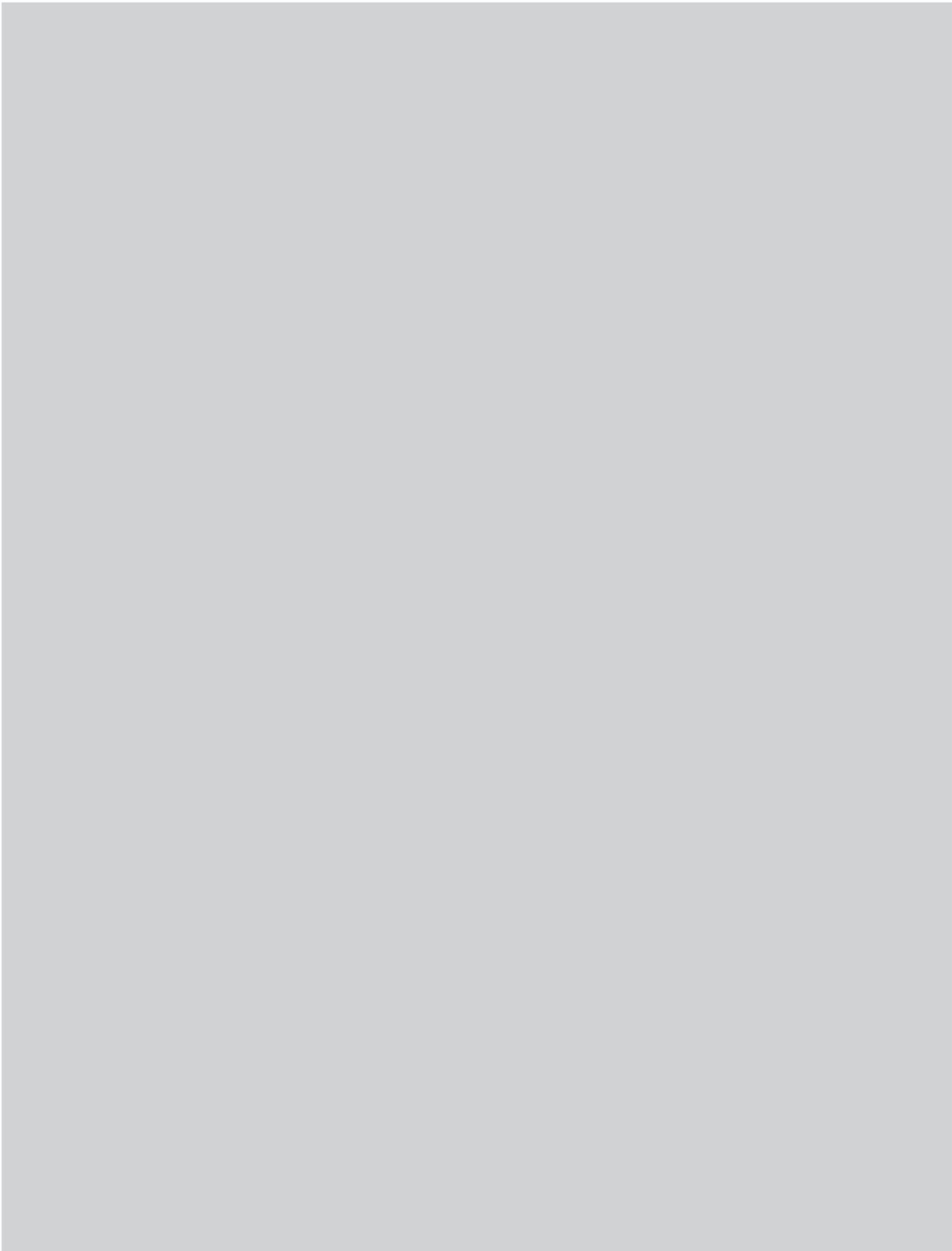
- 46 Why are the scientists excited after Chris and Sam finish their game?
- F Chris has finally defeated Sam at the video game.
 - G The scientists are happy to be finished with the test.
 - H Sam has set a new record for the highest score for the game.
 - J Chris has performed much better than the scientists expected.

- 47 Why does Chris think it is impossible for Sam to memorize the game combinations?
- A He doesn't think Sam has a very good memory.
 - B Sam hasn't had time to learn all the combinations.
 - C There are too many combinations to remember.
 - D Sam hasn't been playing the game long enough.

- 48 In paragraph 15, a notation is a —
- F small letter
 - G suggestion
 - H written comment
 - J assignment

BE SURE YOU HAVE RECORDED ALL OF YOUR ANSWERS
ON THE ANSWER DOCUMENT.





SOCIAL STUDIES

DIRECTIONS

Read each question and choose the best answer. Then fill in the correct answer on your answer document.

SAMPLE A

Who served as president of the United States during the Civil War?

- A Thomas Jefferson
- B Andrew Jackson
- C James K. Polk
- D Abraham Lincoln



- 1** The discovery of what natural resource in California in 1848 and 1849 caused rapid population growth in the region?
- A** Gold
 - B** Silver
 - C** Copper
 - D** Iron
- 2** These people served as public officials during the Civil War. Which of the following matches is incorrect?
- F** Jefferson Davis — secretary of state for the Confederacy
 - G** Ulysses S. Grant — commander of the Union army
 - H** Robert E. Lee — commander of the Confederate army
 - J** Abraham Lincoln — president of the United States
- 3** Textiles became a leading industry in the North after the cotton gin was invented by —
- A** Daniel Webster
 - B** Benjamin Franklin
 - C** Eli Whitney
 - D** Samuel Slater
- 4** Economic activity in the New England colonies relied heavily on trade in part because —
- F** Puritan beliefs prohibited farming for profit
 - G** farmers in the region feared attacks from Native Americans
 - H** a cold climate and poor soil made farming unprofitable
 - J** the British monarchy provided land grants only to southern colonies
- 5** Benjamin Franklin convinced which of the following countries to lend military support to George Washington's Continental army during the American Revolution?
- A** Prussia
 - B** Portugal
 - C** Russia
 - D** France

Use the quotation and your knowledge of social studies to answer the following question.

That man over there says that women need to be helped into carriages, and lifted over ditches. . . . Nobody ever helps me. . . . And ain't I a woman?

— *Sojourner Truth, 1851*
Women's Rights Convention

- 6 In this quotation, Sojourner Truth is emphasizing the —
- F need for equal treatment of immigrants
 - G unequal treatment of women
 - H difference between the rich and poor
 - J importance of education for women
- 7 The Bill of Rights was added to the U.S. Constitution mainly to —
- A protect individual liberties
 - B encourage increased political participation
 - C clarify the roles of the branches of government
 - D establish American independence from British rule

- 8 The Mexican War was prompted by the annexation of —
- F California
 - G Texas
 - H New Mexico
 - J Utah

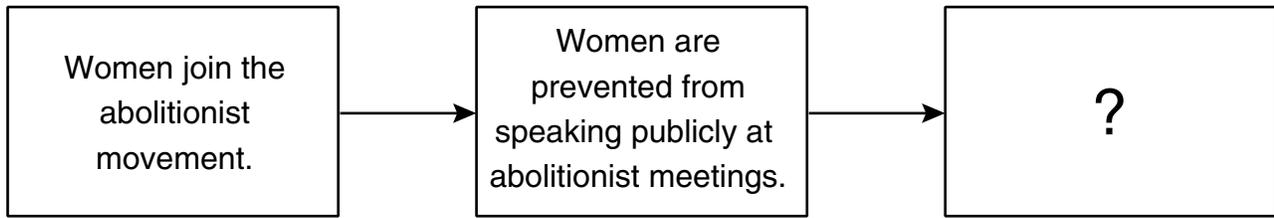
Use the image and your knowledge of social studies to answer the following question.



Source: CORBIS

- 9 What would be the best title for the image above?
- A Heading West
 - B Dangers on the Trail
 - C The California Gold Rush
 - D Plantation Life
-
- 10 Many Americans supported the Indian Removal Act of 1830 because it —
- F punished Native Americans for attacks on Washington, D.C.
 - G opened Native American lands to settlement by white citizens
 - H forced U.S. citizenship on Native Americans
 - J forced Native American leaders out of the U.S. Congress
- 11 In 1828 the U.S. Congress increased taxes paid on imports to protect newly established northern industries from foreign competition. The southern economy was hurt by this protective tariff because the tariff —
- A increased the price of foreign manufactured goods
 - B decreased profits for foreign manufacturers
 - C led to widespread bank failures
 - D prevented trade with western territories

Use the diagram and your knowledge of social studies to answer the following question.

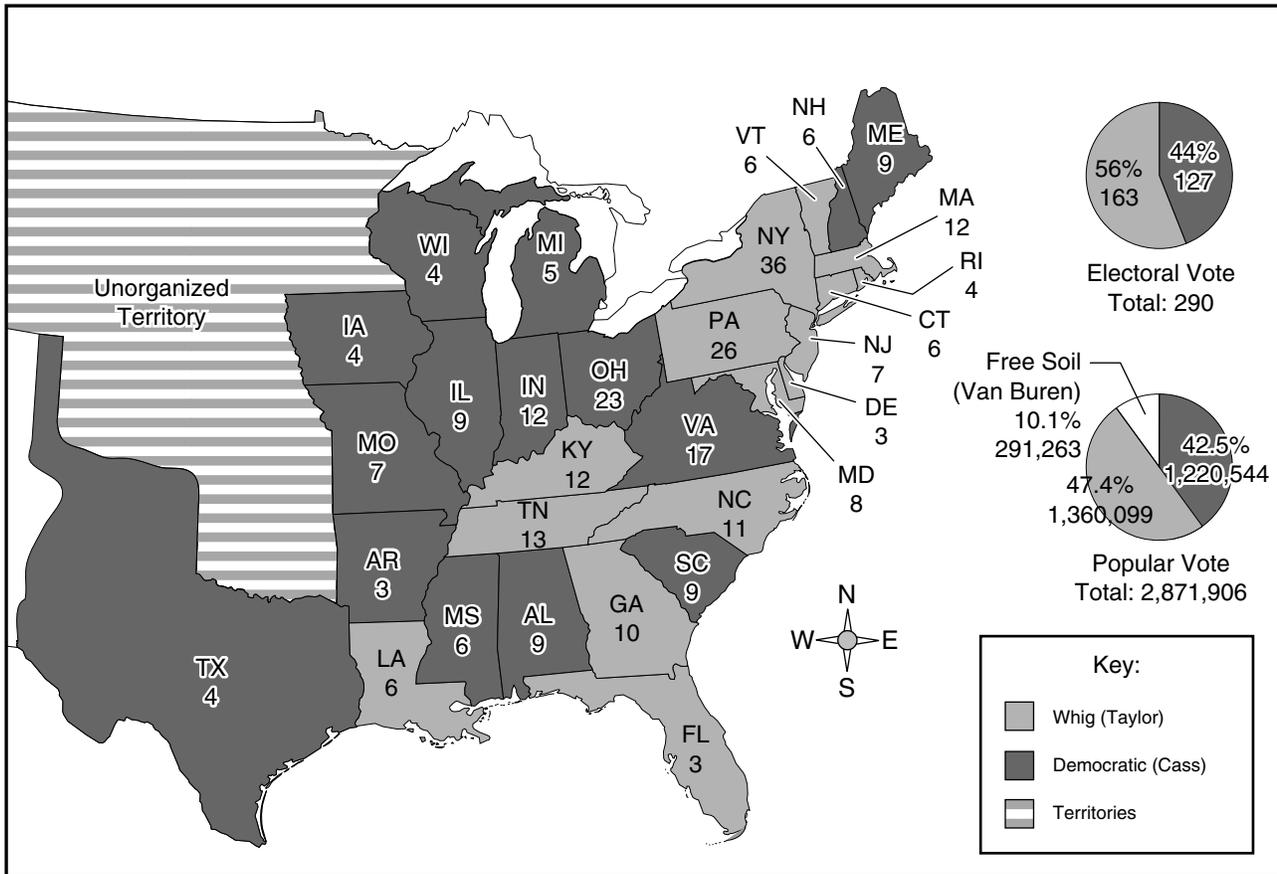


- 12 Which of these best completes the diagram above?
- F Women organize in support of temperance.
 - G Women organize in support of education reform.
 - H Women organize in support of women's suffrage.
 - J Women give up political organizing.

-
- 13 The steamboat had an important effect on economic development in the United States because it —
- A was safer than other forms of transportation
 - B was an efficient method of transporting goods
 - C could travel faster than the locomotive
 - D created a need for man-made waterways

Use the map and your knowledge of social studies to answer the following question.

Presidential Election of 1848



Source: Department of the Interior

- 14 The map above indicates that in the presidential election of 1848 —
- F the Midwest was solidly behind the Whig candidate
 - G New England tended to favor the Democratic candidate
 - H the South was solidly behind the Whig candidate
 - J the westernmost states tended to favor the Democratic candidate

- 15 In the early 1800s, manufacturing in the United States converted from cottage industry to factory production because of —
- A a lack of skilled workers
 - B a decreased demand for finished goods
 - C difficulty in transporting goods
 - D the ability to produce goods more efficiently

- 16 Which of the following would most likely be a strong believer in Manifest Destiny?
- F The owner of a textile factory in the Northeast
 - G A slave on a southern plantation
 - H A Native American
 - J A farmer wanting to obtain new land

Use the information in the box and your knowledge of social studies to answer the following question.

- No executive branch
- No levying of taxes
- No regulation of trade
- No national court system

- 17 The list above summarizes some limitations of the national government under the —
- A Articles of Confederation
 - B U.S. Constitution
 - C Mayflower Compact
 - D Declaration of Independence

Use the cartoon and your knowledge of social studies to answer the following question.



- 18 This political cartoon illustrates an issue discussed during the Constitutional Convention of 1787. The issue was over —
- F state boundaries
 - G immigration
 - H branches of government
 - J representation in Congress

- 19 The present-day states of California, Nevada, and Utah were acquired in 1848 from —
- A Spain
 - B Mexico
 - C Great Britain
 - D Russia

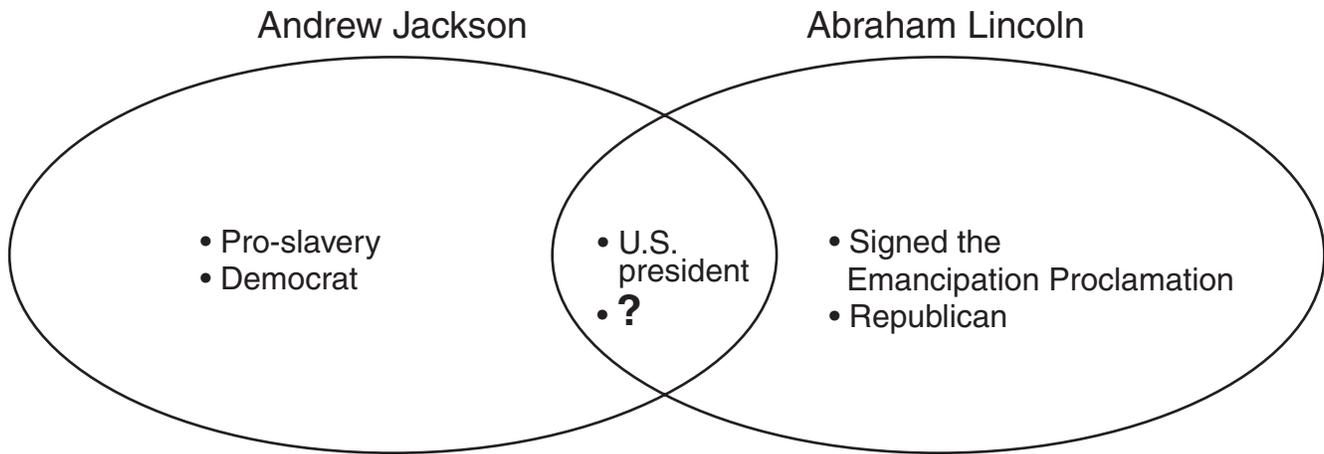
Use the excerpt and your knowledge of social studies to answer the following question.

We whose names are underwritten . . .
combine ourselves into a civil body politic. . . .

*Mayflower Compact,
November 11, 1620*

- 20 What is the significance of the document excerpted above?
- F It marked the establishment of the first tax-collecting authority in the American colonies.
 - G It established the basic laws followed by all the American colonies.
 - H It marked the first appearance of political parties.
 - J It established a self-governing colony based on rule of the people.
- 21 What made New Orleans a significant port to people living in the Ohio Valley?
- A The taxes collected in New Orleans supported towns in the Ohio Valley.
 - B New Orleans was a fortified city that protected the Missouri River against invasion.
 - C Many of the goods needed by the people of the Ohio Valley were manufactured in New Orleans.
 - D New Orleans was an important trade center near the mouth of the Mississippi River.
- 22 In addition to declaring that the United States would remain neutral in European wars, the Monroe Doctrine —
- F invited the European powers to begin to develop new colonies in Africa and Asia
 - G maintained that the United States had a duty to combat injustice in Asia
 - H ended the War of 1812 between Great Britain and the United States
 - J demanded that the European powers not establish colonies in the Western Hemisphere

Use the diagram and your knowledge of social studies to answer the following question.



23 Which of these would best complete the diagram above?

- A Upheld the power of the federal government
- B Served in the War of 1812
- C Supporter of a national bank
- D Opponent of westward expansion

24 Southern dependence on slavery and an agricultural economy resulted in —

- F an excellent railroad system
- G a lack of factories
- H a dependence on government tax breaks
- J several new political parties

- 25 The primary purpose of the 14th Amendment (1868) was to —
- A guarantee a minimum income for African Americans
 - B grant citizenship to African Americans
 - C ensure equal congressional representation for African Americans
 - D justify the denial of liberties to African Americans

Use the information in the box and your knowledge of social studies to answer the following question.

- Proposed by two-thirds vote of House and Senate
- Ratified by three-fourths of state legislatures

- 26 Which of the following is the best title for the information above?
- F Constitutional Amendment Process
 - G Procedures for Impeaching the President
 - H Procedures for Appointing Federal Judges
 - J President's Role in the Legislative Process

- 27 What was a major effect of the 1857 *Dred Scott v. Sandford* decision?
- A Southerners were upset by the federal government's disregard of states' rights.
 - B Stephen Douglas abandoned his support for popular sovereignty.
 - C Abraham Lincoln gained national recognition because he wrote the decision.
 - D Northerners were angered because the decision could extend slavery into territories.

- 28 Which colony was founded in 1607 and was successful because of its fertile land, plentiful game, and abundant timber?
- F Virginia
 - G Massachusetts
 - H Georgia
 - J New York

29 Alexander Hamilton favored a strong federal government because he believed it would benefit the economy. As a result of this belief, he also supported —

- A the abolishment of all tariffs
- B the establishment of a national bank
- C increasing agricultural activity
- D imposing high taxes on factories

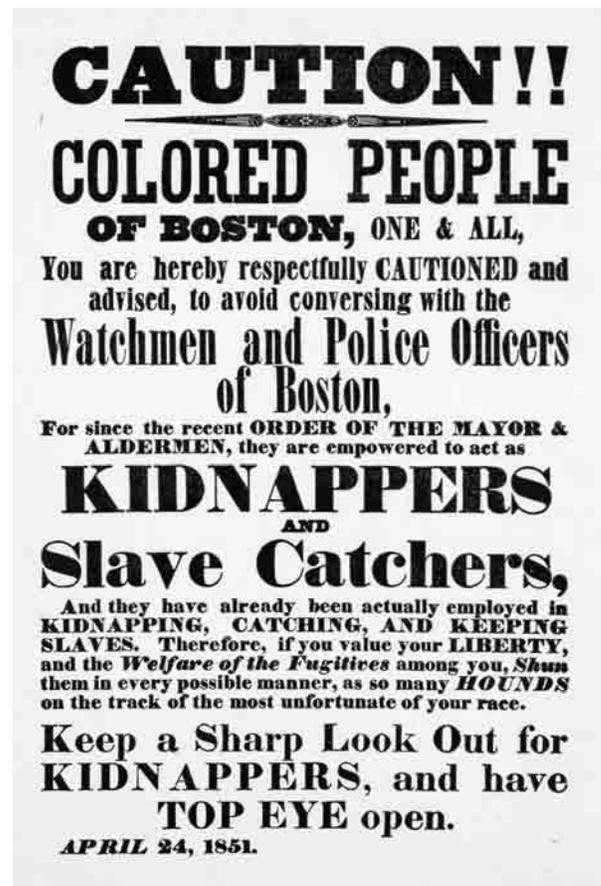
30 The Era of Good Feelings, which followed the War of 1812, was characterized by —

- F increased cooperation between the United States and Native Americans
- G the rise of the Federalist Party as a major political force
- H increased nationalism and patriotism in the United States
- J an increase in the number of political parties

31 Under the terms of the Northwest Ordinance of 1787, new states admitted to the Union —

- A could not take part in presidential elections
- B were considered equal to existing states
- C were required to defend Native American lands
- D were required to allow slavery

Use the poster and your knowledge of social studies to answer the following question.



Source: Library of Congress

32 The poster above was printed after passage of the Fugitive Slave Act in 1850. What conclusion can be made about the consequences of this law?

- F Northern law enforcement officials would attempt to capture runaway slaves.
- G Northern law enforcement officials would not be interested in capturing runaway slaves.
- H Northerners were more likely than southerners to approve of the capture of runaway slaves.
- J Southerners would be forced to capture runaway slaves.

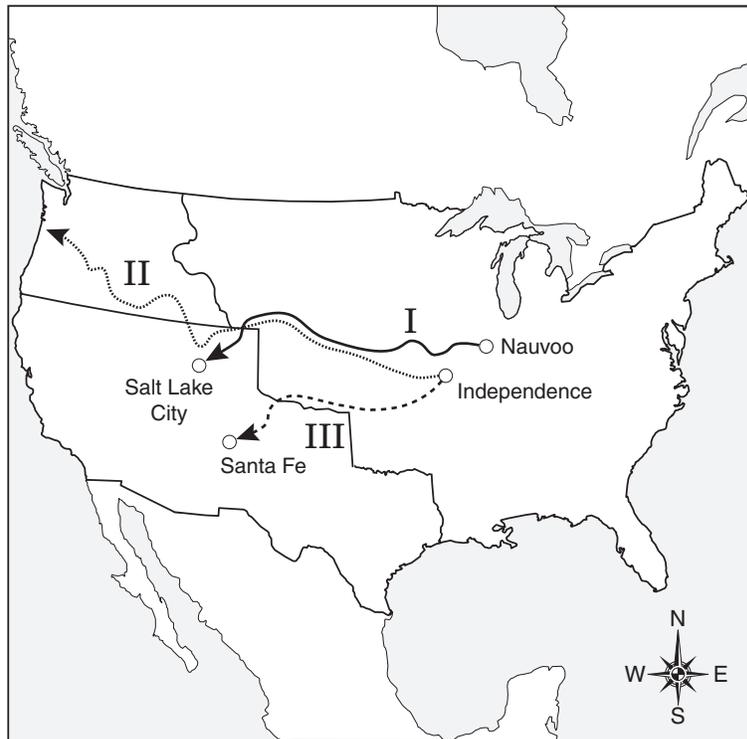
- 33** In *Marbury v. Madison* (1803), the U.S. Supreme Court established the —
- A** legality of slavery
 - B** principle of judicial review
 - C** right of the accused to remain silent
 - D** requirement of providing legal aid to the poor

- 34** The missions founded in California during the 1700s are evidence of the cultural influence of which group of people?
- F** African Americans
 - G** French Canadians
 - H** The Chinese
 - J** The Spanish

- 35** In 1787 James Madison and other Federalists supported a written plan for a new government. This plan —
- A** made changing laws virtually impossible
 - B** created a parliamentary government
 - C** called for a stronger national government
 - D** called for stricter interpretation of the law

Use the map and your knowledge of social studies to answer the following question.

Trails to the West

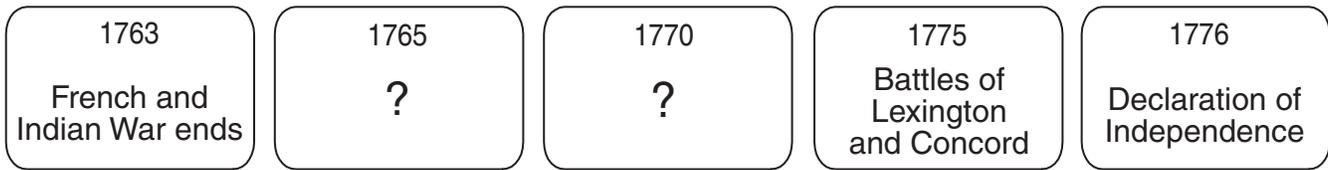


36 Which of these provides the correct labels for the trails shown on the map above?

- F** I. Mormon
II. Oregon
III. Santa Fe
- G** I. Oregon
II. Mormon
III. Santa Fe
- H** I. Oregon
II. Santa Fe
III. Mormon
- J** I. Santa Fe
II. Oregon
III. Mormon

- 37** From the point of view of someone living in the American colonies during the 1770s, a patriot was a person who —
- A** attempted to stop all trade with American merchants
 - B** supported the authority of the king over the colonies
 - C** attempted to referee disputes between Great Britain and the colonies
 - D** supported the movement for American independence

Use the time line and your knowledge of social studies to answer the following question.



38 Which events in U.S. history best complete the time line above?

- F Stamp Act, Boston Massacre
- G Sugar Act, Shays's Rebellion
- H Townshend Acts, Battle of Yorktown
- J Intolerable Acts, Articles of Confederation

Use the illustration and your knowledge of social studies to answer the following question.

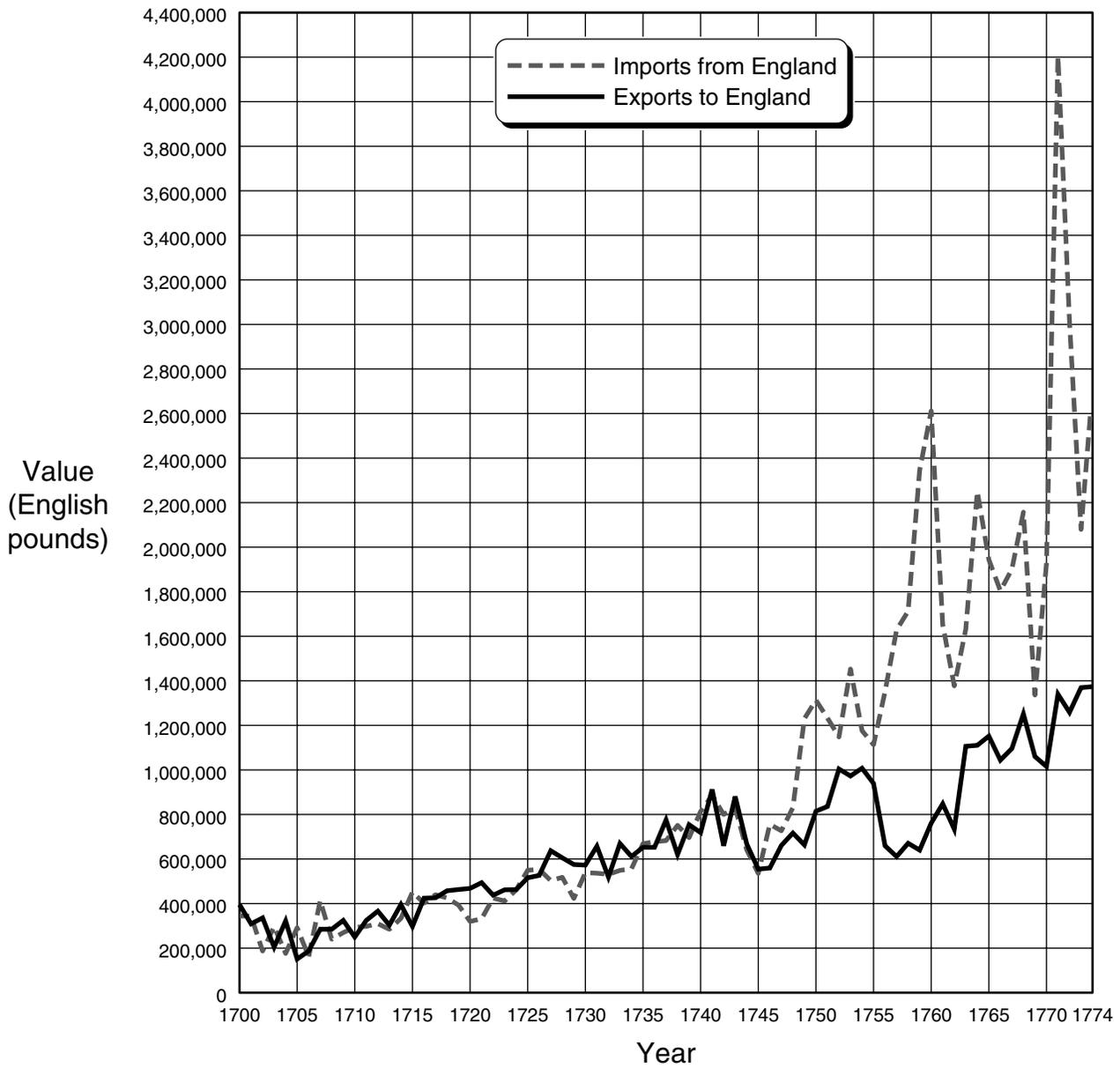


Source: CORBIS

- 39 Which of these individuals would have been the most likely to agree with the point of view expressed in the illustration above?
- A Temperance leader
 - B Abolitionist leader
 - C Suffrage leader
 - D Business leader

Use the graph and your knowledge of social studies to answer the following question.

Colonial Trade, 1700–1774



Source: *Historical Statistics of the United States*

- 40 According to the graph, between 1745 and 1774, American exports to England —
- F steadily declined in value
 - G had a lower value than imports from England
 - H greatly increased in variety
 - J were primarily manufactured goods

Use the excerpt and your knowledge of social studies to answer the following question.

Education, then, beyond all other devices of human origin, is the great equalizer of the conditions of men. . . .

— *Horace Mann, 1848*

- 41 Based on this excerpt, which statement would Horace Mann most likely agree with regarding public education?
- A Public education promotes knowledge and skills that open the doors to opportunity.
 - B Public education guarantees each person a government job.
 - C Public education enables everyone to become wealthy.
 - D Public education benefits the wealthy more than the poor.
- 42 How did the invention of interchangeable parts affect industry in the United States in the 1800s?
- F It made the production of goods faster and cheaper.
 - G It encouraged immigrants to demand higher wages.
 - H It reduced opportunities for female workers.
 - J It slowed the rate of factory construction.

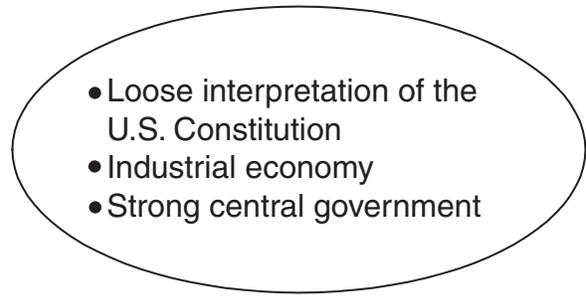
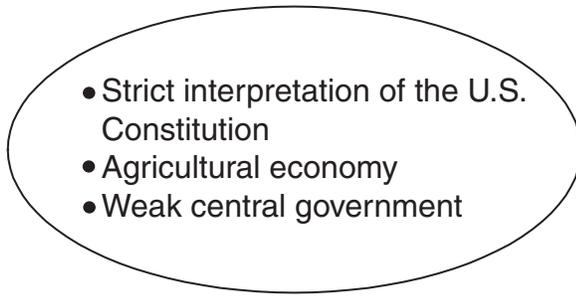
Use the excerpt and your knowledge of social studies to answer the following question.

Give me liberty, or give me death!

— *Patrick Henry, 1775*

- 43 What is Patrick Henry's message in this excerpt?
- A Only the free can survive.
 - B Freedom is worth dying for.
 - C Free people live longer.
 - D People must die to gain freedom.

Use the diagram and your knowledge of social studies to answer the following question.



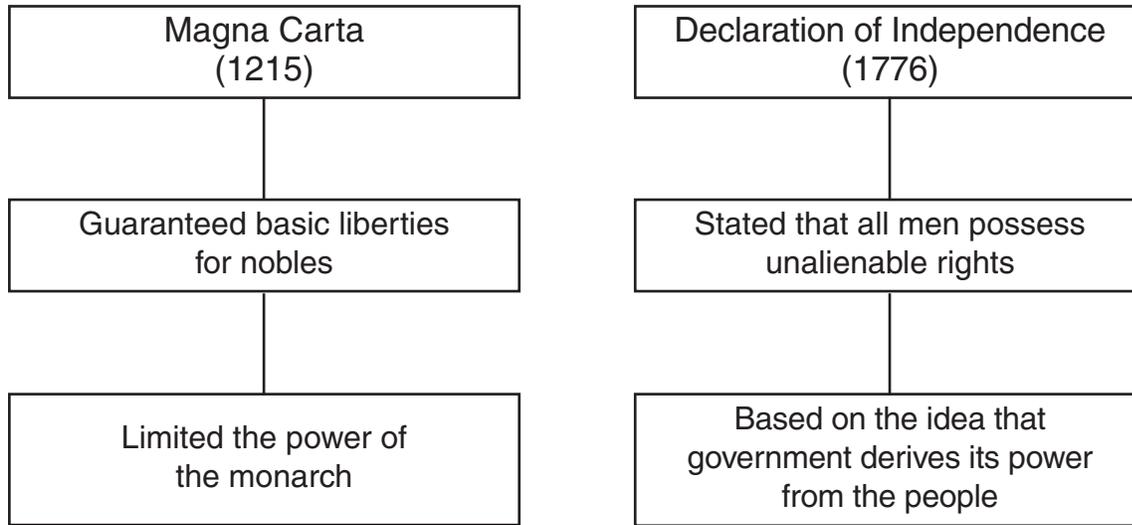
44 The different political views in the diagram above represent the —

- F** Loyalists and Patriots
- G** Democratic-Republicans and Federalists
- H** Know-Nothings and Abolitionists
- J** Whigs and Loyalists

45 An unalienable right —

- A** is a right that cannot be taken away without due process
- B** is established by majority vote
- C** favors some people's rights over others'
- D** applies only in one's home country

Use the diagrams and your knowledge of social studies to answer the following question.



46 Which is the best conclusion that can be drawn from this information?

- F The idea of guaranteeing individual rights developed over time.
- G Governments gradually became more abusive.
- H Monarchs learned to enjoy sharing power with their subjects.
- J The rights of citizens are protected by nobles.

47 As the primary author of the Declaration of Sentiments, Elizabeth Cady Stanton helped advance the —

- A temperance movement
- B women’s suffrage movement
- C prison-reform movement
- D education-reform movement

Use the information in the box and your knowledge of social studies to answer the following question.

- William Lloyd Garrison — published an abolitionist newspaper
- John Brown — raided the federal arsenal at Harpers Ferry
- Harriet Tubman — worked as a “conductor” for the Underground Railroad
- Harriet Beecher Stowe — wrote the novel *Uncle Tom’s Cabin*

48 The actions taken by these people were aimed at —

- F protecting states’ rights
- G passing fugitive-slave laws
- H stopping the South from seceding
- J ending slavery

BE SURE YOU HAVE RECORDED ALL OF YOUR ANSWERS
ON THE ANSWER DOCUMENT.



