

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.

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	$A = \pi r^2$
Volume	cube	$V = s^3$
	rectangular prism	$V = lwh$
Pi	π	$\pi \approx 3.14$ or $\pi \approx \frac{22}{7}$

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.”

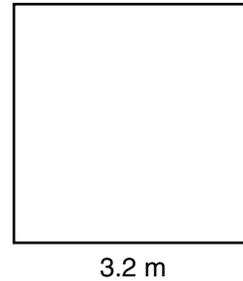
SAMPLE A

Find the greatest common factor of 12 and 18.

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

SAMPLE B

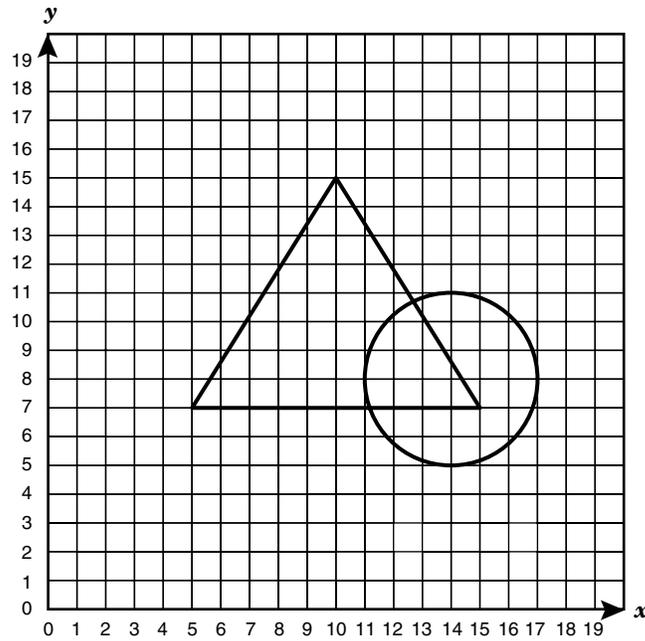
Find the perimeter of this square rug in meters.



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



1 Which ordered pair represents a point located inside both the triangle and the circle?

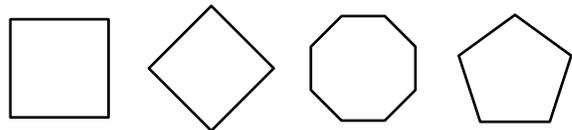


- A (8, 4)
- B (8, 10)
- C (14, 8)
- D (15, 9)

2 At Sandra's school there is 1 teacher for every 15 students. There are 630 students at the school. Which proportion can be used to find x , the number of teachers?

- F $\frac{x}{15} = \frac{1}{630}$
- G $\frac{15}{1} = \frac{x}{630}$
- H $\frac{1}{15} = \frac{x}{630}$
- J $\frac{x}{1} = \frac{15}{615}$

3 Look at the shapes below.



Which statement best describes these shapes?

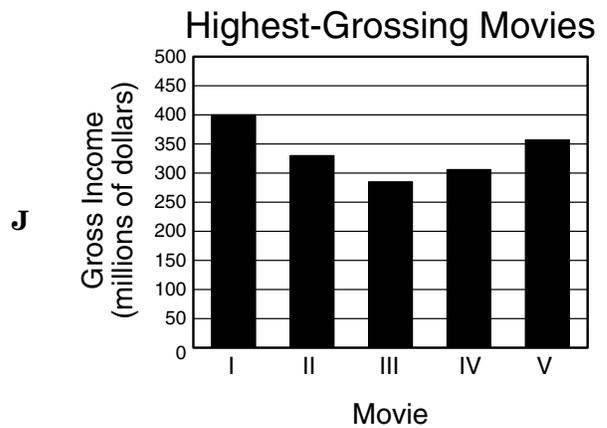
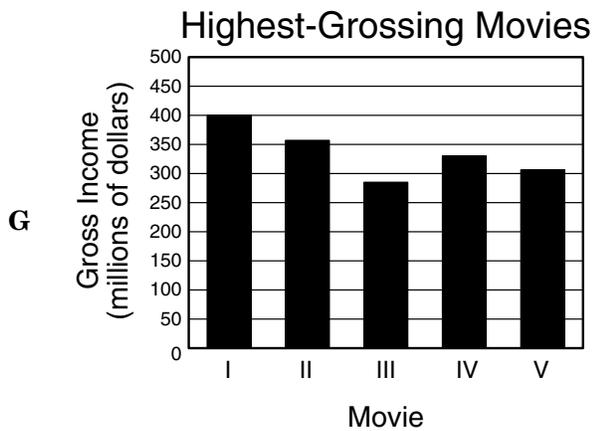
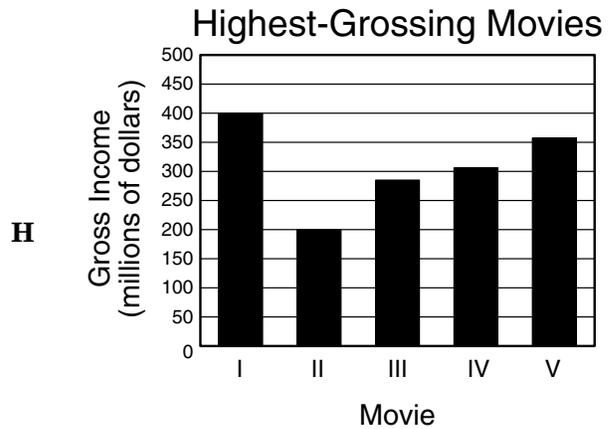
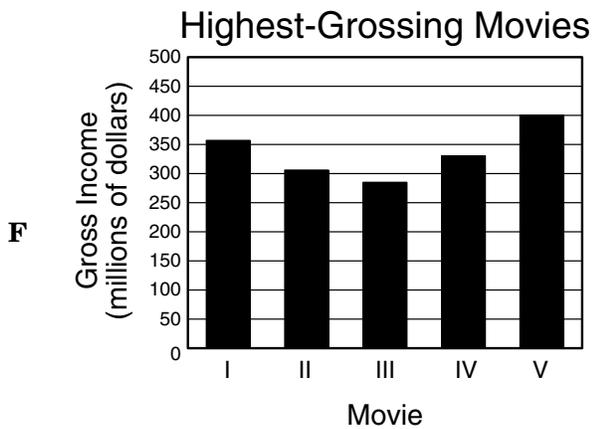
- A They all appear to be regular polygons.
- B They all have an even number of sides.
- C They all have an even number of angles.
- D They all contain only right angles.

4 The table shows the gross income of 5 of the highest-grossing U.S. movies from 1982 to 1996.

Highest-Grossing Movies

Movie	Gross Income (millions of dollars)
I	399.8
II	329.7
III	285.0
IV	306.2
V	356.8

Which graph most accurately displays the information in the table?



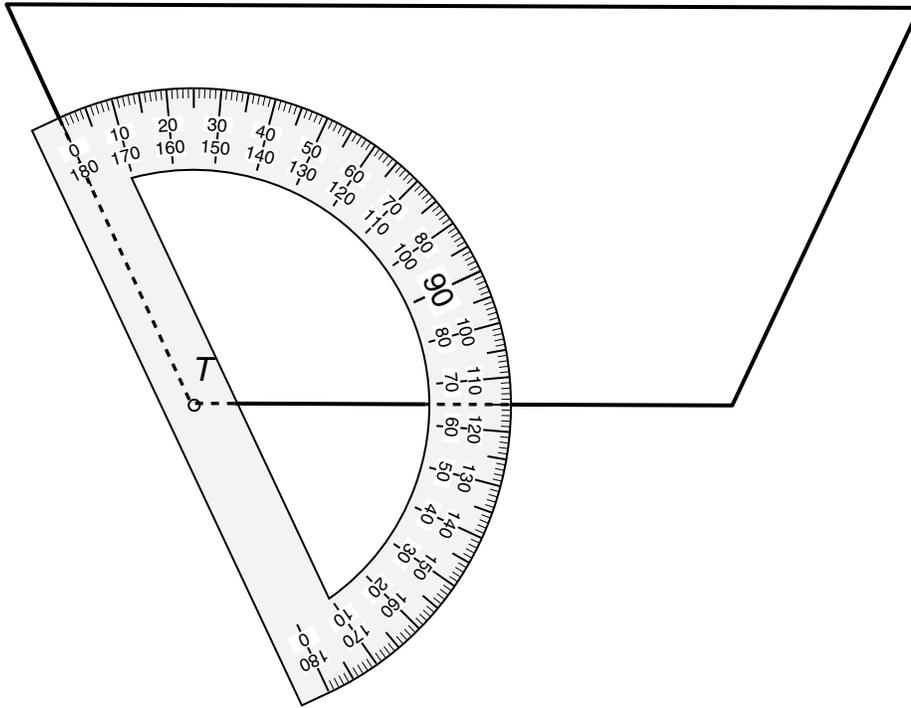
5 Several middle school bands boarded buses after a marching competition. If there were 21 buses and about 47 band members on each bus, about how many band members were on the buses in all?

- A** 70
- B** 900
- C** 1,000
- D** 1,250

6 Miss Caruso's car travels an average of 22 miles per gallon of gasoline. The gas tank holds 12 gallons. How would you find the number of miles Miss Caruso can drive on 1 full tank of gasoline?

- F** Add the car's average mileage in miles per gallon to the number of gallons the tank can hold
- G** Subtract the number of gallons the tank can hold from the car's average mileage in miles per gallon
- H** Multiply the car's average mileage in miles per gallon by the number of gallons the tank can hold
- J** Divide the car's average mileage in miles per gallon by the number of gallons the tank can hold

7 Lynn's garden is shaped like an isosceles trapezoid.



Find the measure of $\angle T$ to the nearest degree.

- A 65°
- B 75°
- C 115°
- D 125°

- 8 Jade is 3 years older than Steven, and Steven is 5 years younger than Andrew, who is 15 years old. Which table could be used to find Jade's age?

Ages

F

Name	Age (years)
Jade	7
Steven	8
Andrew	15

Ages

G

Name	Age (years)
Jade	$15 - 5 + 3$
Steven	$15 - 5$
Andrew	15

Ages

H

Name	Age (years)
Jade	$15 - 5$
Steven	$15 - 5 + 3$
Andrew	15

Ages

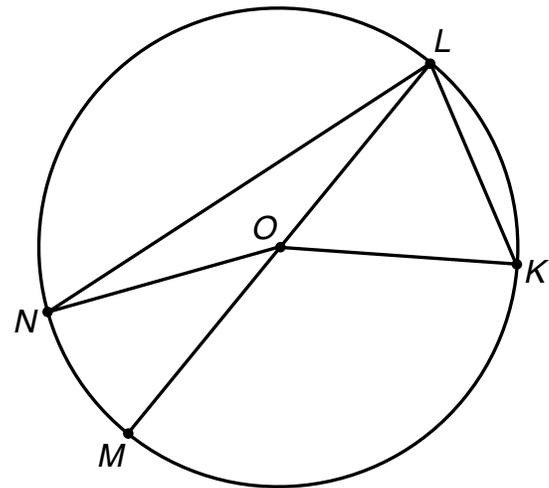
J

Name	Age (years)
Jade	3
Steven	5
Andrew	15

- 9 Josie's horse eats about 2 bales of hay every 5 days. About how many bales of hay does Josie's horse eat in 31 days?

- A 8
- B 12
- C 16
- D 78

- 10 A circle with center at point O is shown below.

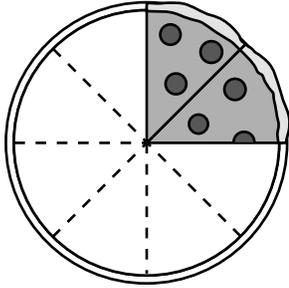


Which line segment is 2 times the length of radius OK ?

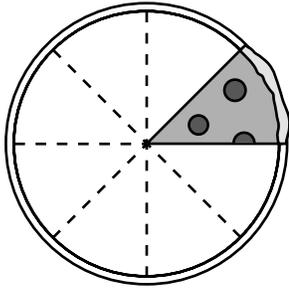
- F Segment LN
- G Segment LM
- H Segment LK
- J Segment ON

- 11 Frank and Joe each bought a small pizza and ate only part of their pizza. The pictures below show how much of the pizzas were left.

Frank's Pizza



Joe's Pizza



What portion of the pizza did Frank and Joe eat altogether?

- A $\frac{3}{8}$
 B $1\frac{3}{4}$
 C $\frac{7}{8}$
 D $1\frac{5}{8}$

- 12 A triangle has angles measuring 45° and 55° . What is the measure of the triangle's third angle?

- F 80°
 G 100°
 H 125°
 J 135°

- 13 The Q&R Band performed concerts from 1992 to 2001. The table shows the number of concerts the band performed each year.

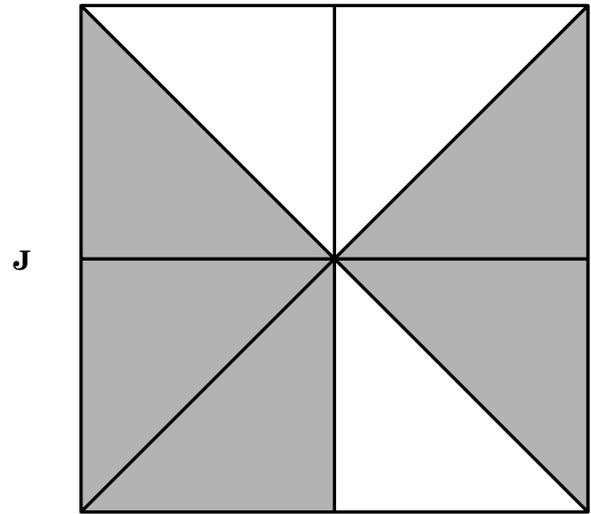
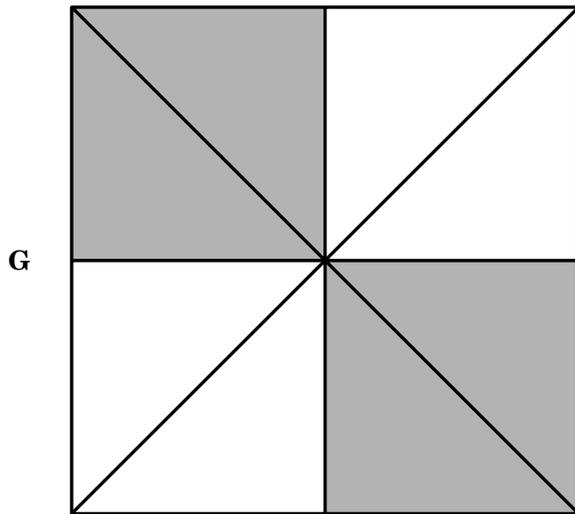
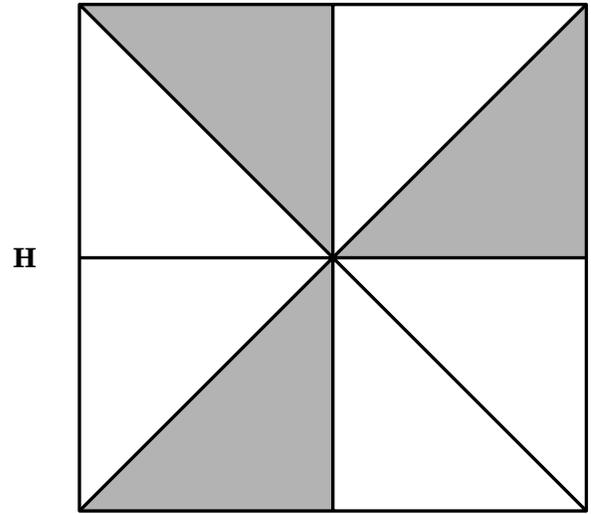
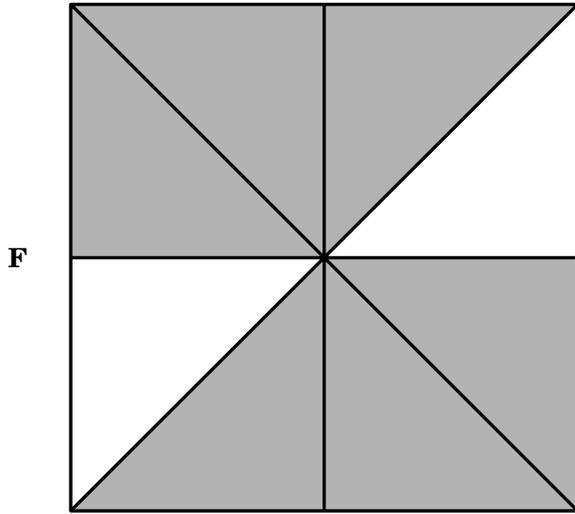
Q&R Band Performances

Year	Number of Concerts
1992	168
1993	172
1994	142
1995	180
1996	162
1997	162
1998	180
1999	180
2000	168
2001	172

What is the median of the number of concerts?

- A 162
 B 170
 C 180
 D 172

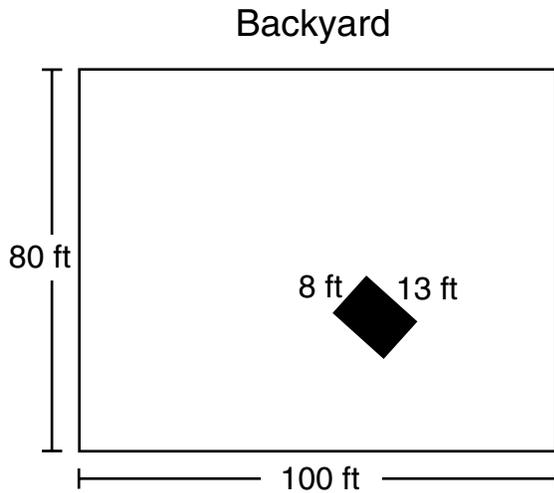
- 14 Each square below is divided into sections of equal size. Which square has 62.5% of its total area shaded?



- 15 During basketball season Wanda made 2 out of every 3 free throws she attempted. In the last basketball game, Wanda attempted 12 free throws. How many free throws would she have been expected to make?

- A 2
- B 8
- C 24
- D 36

- 16 A family put a rectangular patio in their backyard and planted grass in the rest of the yard. The rectangular backyard is 100 feet by 80 feet, and the patio is 13 feet by 8 feet. What is the area of the backyard that is planted with grass?



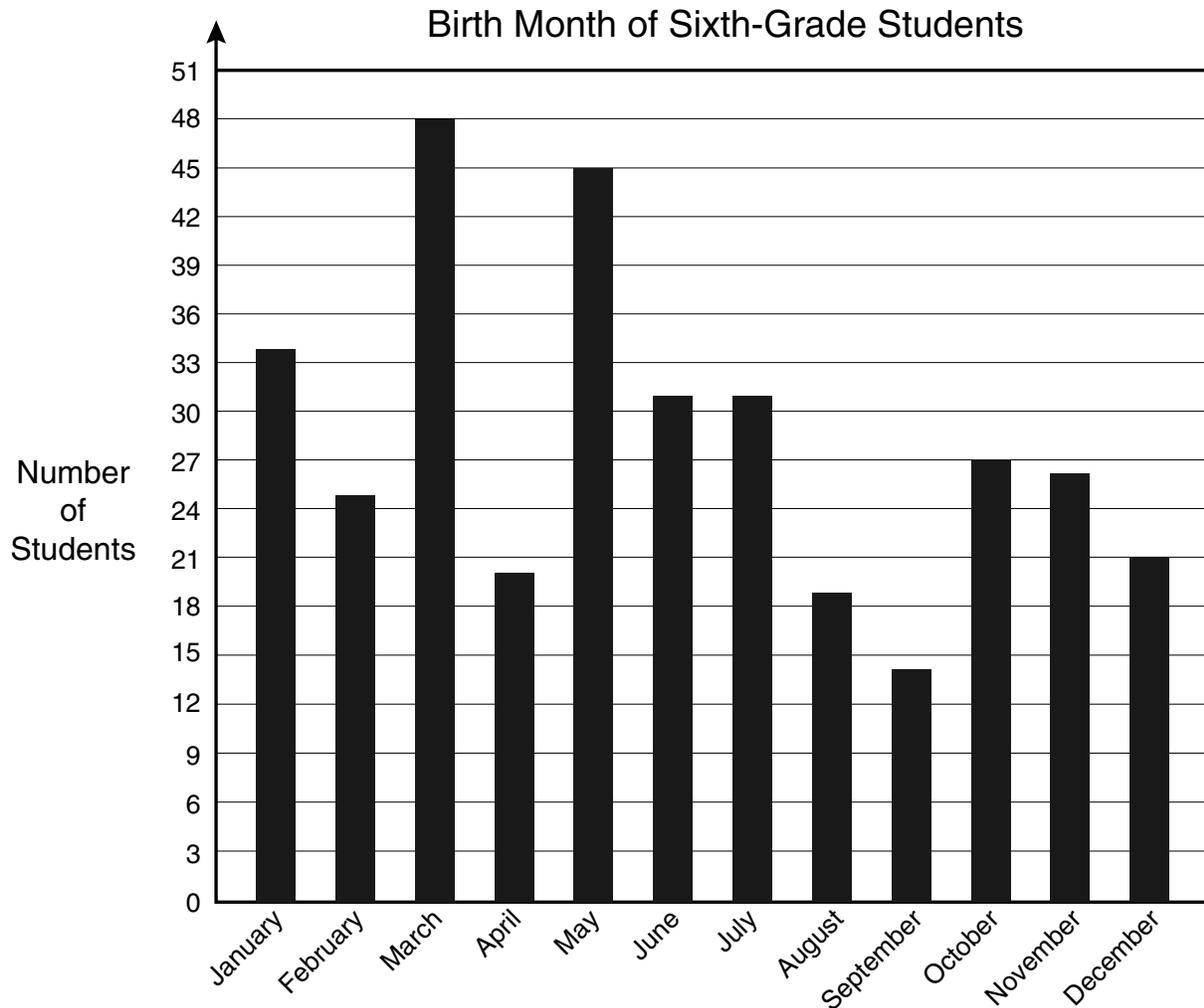
- F** 402 sq ft
G 7,896 sq ft
H 8,000 sq ft
J 8,104 sq ft
- 17 Find the greatest common factor of 12, 24, and 36.
- A** 6
B 12
C 18
D 24

- 18 Mrs. Miller is baking cookies for 16 children. She has baked 2 dozen cookies. If she wants each child to receive exactly 2 cookies and have no cookies left over, how many more cookies should she bake?

- F** 1.5
G 8
H 24
J 32

- 19 If the cost of renting a canoe is a basic fee of \$5 plus an additional \$2.50 for each hour that the canoe is rented, which equation can be used to find c , the cost in dollars of the rental for h hours?
- A** $c = 2.5h + 5$
B $c = 5h + 2.5$
C $c = 2.5(h + 5)$
D $c = 5(h + 2.5)$

20 Apollo Middle School collected the following data from students.



Which statement is supported by the graph?

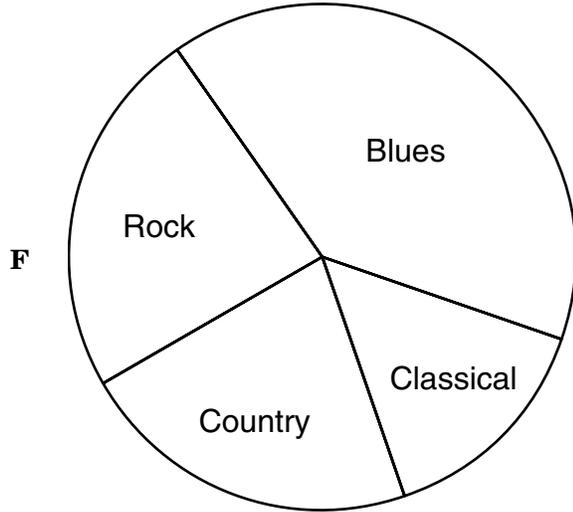
- F** More than 25% of the students were born in either January or March.
- G** The second half of the year had fewer births than the first half.
- H** May was the birth month for 30 students.
- J** The same number of births per month occurred in February, October, and November.

- 21** The Springer family took a trip for the holidays. When they left home, the odometer in their car read 5,364.6 miles. When they returned from their trip, the odometer read 7,347.0 miles. How many miles did the Springers travel?

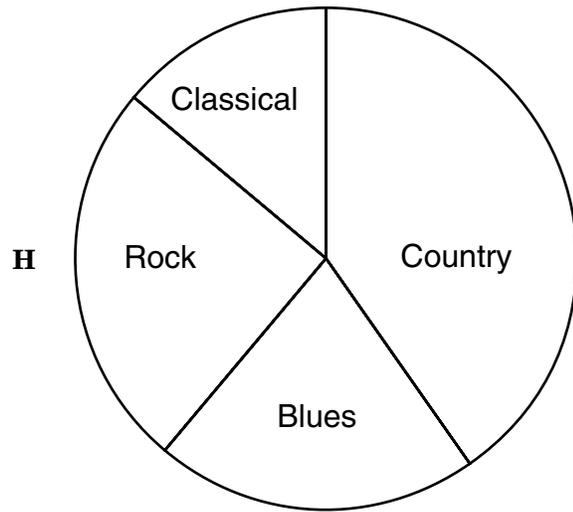
Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

- 22 At Central City Music Store, 15% of the music sold is classical, 20% is blues, 25% is rock, and 40% is country. Which graph best represents these data?

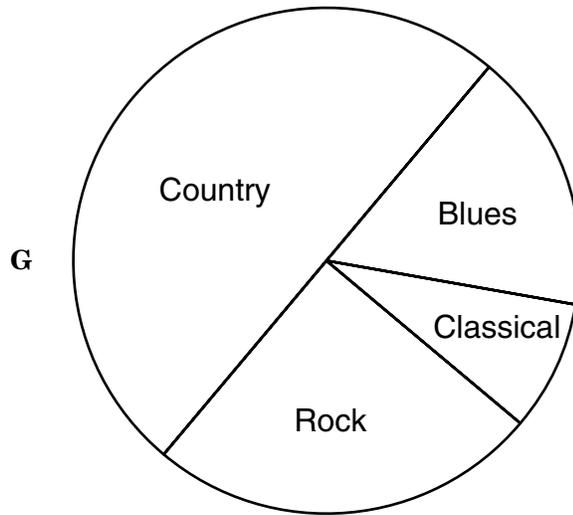
Central City Music Store



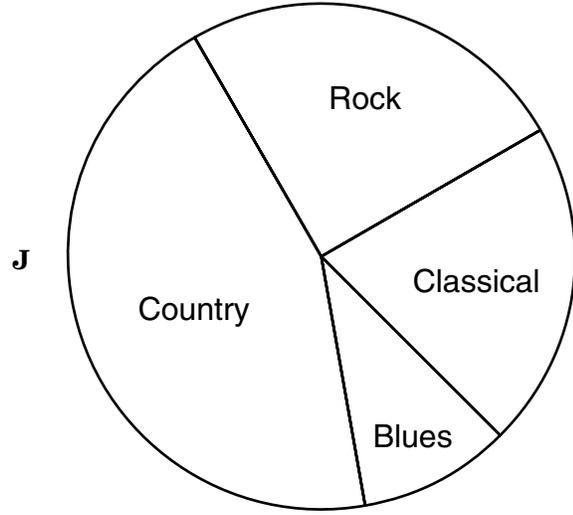
Central City Music Store



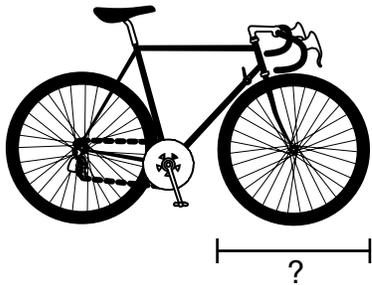
Central City Music Store



Central City Music Store



- 23 Trevor knows the circumference of his bicycle tire, but he needs to find the diameter.



Which method can Trevor use to find the diameter?

- A Multiply the circumference by 2 and divide the result by π
- B Divide the circumference by 2 and multiply the result by π
- C Multiply the circumference by π
- D Divide the circumference by π
- 24 Felicia went shopping for clothes. She bought a pair of jeans priced at \$28.00, a sweater priced at \$32.50, and a belt priced at \$18.75. If there was an 8.75% tax on clothing items, which procedure could be used to find the amount of tax Felicia paid?
- F Multiply the tax rate by the sum of the prices of the clothing items
- G Add the prices of the clothing items to the tax rate
- H Add the prices of the clothing items
- J Multiply the tax rate by the price of the most expensive clothing item

- 25 The table below shows the areas of a triangle where the height of the triangle stays the same but the base changes.

Areas of Triangles

Height (units)	Base (units)	Area (square units)
6	2	6
6	4	12
6	6	18
6	8	24
6	n	?

Which expression can be used to find the area of a triangle that has a height of 6 units and a base of n units?

- A $\frac{n}{2}$
- B $\frac{6}{2}$
- C $\frac{6n}{2}$
- D $6n$
- 26 An animal shelter currently has 20 cats and 25 dogs. What is the ratio of cats to dogs?
- F 5 to 4
- G 4 to 9
- H 4 to 5
- J 1 to 5

27 Mrs. Valcome has \$25.00 to spend on seeds for her flower garden. Marigold seeds cost \$1.50 per package, and zinnia seeds cost \$1.25 per package, tax included. If Mrs. Valcome buys 10 packages of marigold seeds, how can she determine how much money she has left to spend on zinnia seeds?

- A** Add \$1.50 and \$1.25
- B** Subtract the product of 10 and \$1.50 from \$25.00
- C** Multiply \$1.25 and 10
- D** Divide 10 by \$1.25

28 The formula $F = \frac{9}{5}C + 32$ can be used to convert a temperature from degrees Celsius to degrees Fahrenheit. Which of the following best represents $\frac{9}{5}$?

- F** 9.5
- G** 1.8
- H** 0.55
- J** 0.18

29 Which of the following is the least common multiple that Valerie can use to add three fractions with denominators of 6, 8, and 9?

- A** 48
- B** 54
- C** 72
- D** 144

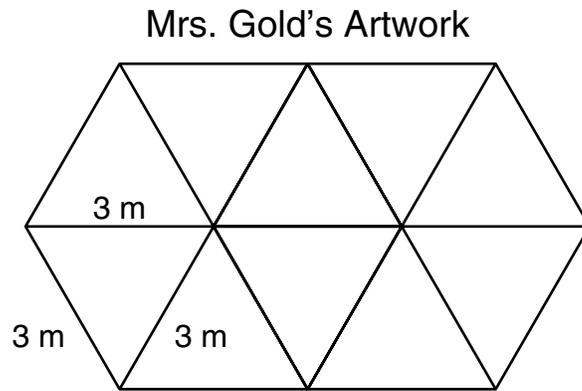
30 Gerald got out of bed at 7:05 A.M. and returned home from school at 2:50 P.M. About how many hours elapsed between the time he got out of bed and the time he returned home from school?

- F** 4 h
- G** 5 h
- H** 7 h
- J** 8 h

31 Which statement about the mixed number $1\frac{1}{3}$ is true?

- A** $1\frac{3}{10} > 1\frac{1}{3}$
- B** $2 < 1\frac{1}{3}$
- C** $1\frac{1}{3} > 1\frac{3}{10}$
- D** $1\frac{1}{3} < 1\frac{1}{4}$

32 Mrs. Gold designed a piece of art by outlining equilateral triangles with wire.



How much wire did Mrs. Gold use to complete her piece of art?

- F 9 m
- G 33 m
- H 90 m
- J 57 m

- 33** Tickets for a circus performance cost \$9.50 for an adult and \$6.75 for a child. Mr. Snyder and some of his friends, a group of 4 adults and 5 children, went to the circus performance. Mr. Snyder paid for all the tickets.

Read the problem-solving steps shown below. Arrange the steps in the correct order for Mr. Snyder to find the total cost for the tickets.

Step K: Add the two products together

Step L: Write down the number of adults and the number of children going to the circus performance

Step M: Multiply the cost of an adult ticket by the number of adults

Step N: Multiply the cost of a child's ticket by the number of children

Which list shows the steps in the correct order?

- A** L, K, M, N
- B** L, M, N, K
- C** N, M, L, K
- D** M, N, L, K

- 34** What is the rule to find the value of a term in the sequence below?

Sequence

Position, n	Value of Term
1	1
2	4
3	7
4	10
5	13
n	?

- F** $n + 3$
- G** $3n - 2$
- H** $3n$
- J** $n - 2$

- 35** Nate has a bag containing 3 red, 2 blue, 4 yellow, and 3 green marbles. If he randomly chooses one marble from the bag, what is the probability that the marble will be blue?

- A** $\frac{5}{6}$
- B** $\frac{1}{3}$
- C** $\frac{1}{4}$
- D** $\frac{1}{6}$

36 Mr. and Mrs. Gunther tiled their rectangular porch using square tiles. Each box of tile contained 30 square tiles. The rectangular porch measured 38 feet by 22 feet. What missing piece of information is needed in order to find the number of boxes of tile the Gunthers needed?

- F** Area of each square tile
- G** Perimeter of the box
- H** Perimeter of the porch
- J** Area of the porch

37 Manuel's heart beats 9 times per 10 seconds while Manuel is resting. About how many times would Manuel's heart beat during 3 minutes of rest?

- A** 27
- B** 162
- C** 270
- D** 200

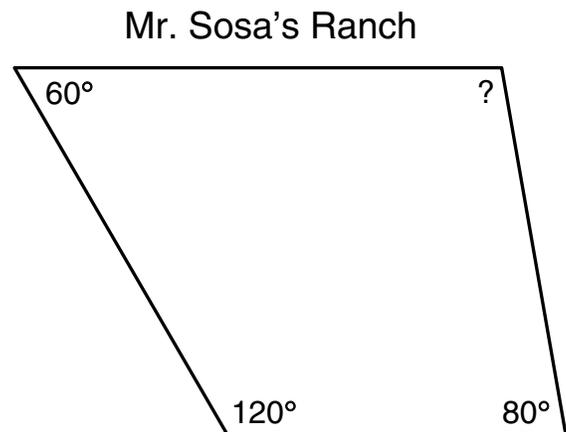
38 If Mr. Albright drives at a constant speed of 65 miles per hour, which method can be used to find the number of hours it will take him to drive 260 miles?

- F** Add 65 and 260
- G** Subtract 65 from 260
- H** Multiply 260 by 65
- J** Divide 260 by 65

39 Which is the prime factorization of 315?

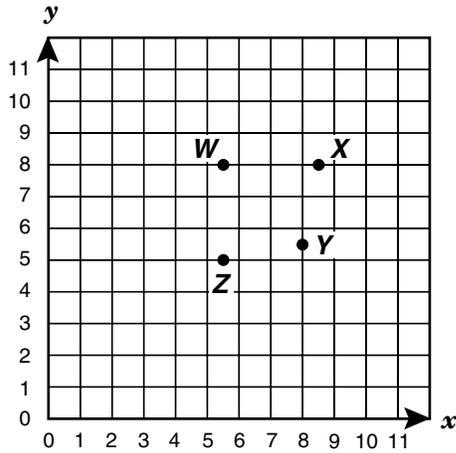
- A** $3^3 \cdot 5$
- B** $3^3 \cdot 7$
- C** $3^2 \cdot 5 \cdot 7$
- D** $3 \cdot 5^2 \cdot 7$

40 Mr. Sosa has a ranch in the shape of a trapezoid. The sides of the ranch form angles measuring 60° , 80° , and 120° . What is the measure of the fourth angle?



- F** 80°
- G** 100°
- H** 240°
- J** 260°

- 41 What point on the grid below corresponds to the coordinate pair $(5\frac{1}{2}, 8)$?



- A Point W
- B Point X
- C Point Y
- D Point Z

- 42 Franklin's Vending Service received a shipment of soda for its machines. The manager determined that 15% of the cans were damaged. What fraction of the cans were damaged?

- F $\frac{1}{15}$
- G $\frac{3}{20}$
- H $\frac{1}{5}$
- J $\frac{2}{3}$

- 43 Bob's Lunch Café offers 3 kinds of sandwich fillings and 3 kinds of bread. Which table shows all the possible sandwich combinations at Bob's Lunch Café?

Sandwich Combinations

A

Bread	Sandwich Filling
White	Chicken
Wheat	Chicken
Sourdough	Chicken
White	Tuna
Wheat	Tuna
Sourdough	Tuna

Sandwich Combinations

C

Bread	Sandwich Filling
White	Chicken
Wheat	Tuna
Sourdough	Ham

Sandwich Combinations

B

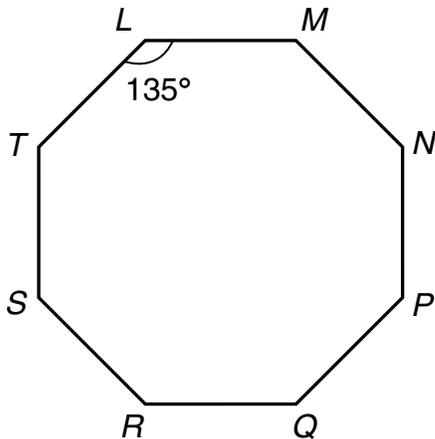
Bread	Sandwich Filling
White	Chicken
White	Tuna
White	Ham
Wheat	Chicken
Wheat	Tuna
Wheat	Ham
Sourdough	Chicken
Sourdough	Tuna
Sourdough	Ham

Sandwich Combinations

D

Bread	Sandwich Filling
White	Chicken
White	Chicken
White	Chicken
Wheat	Tuna
Wheat	Tuna
Wheat	Tuna
Sourdough	Ham
Sourdough	Ham
Sourdough	Ham

- 44 The angle at each vertex of a regular octagon is 135° .



What type of angle is at each vertex of a regular octagon?

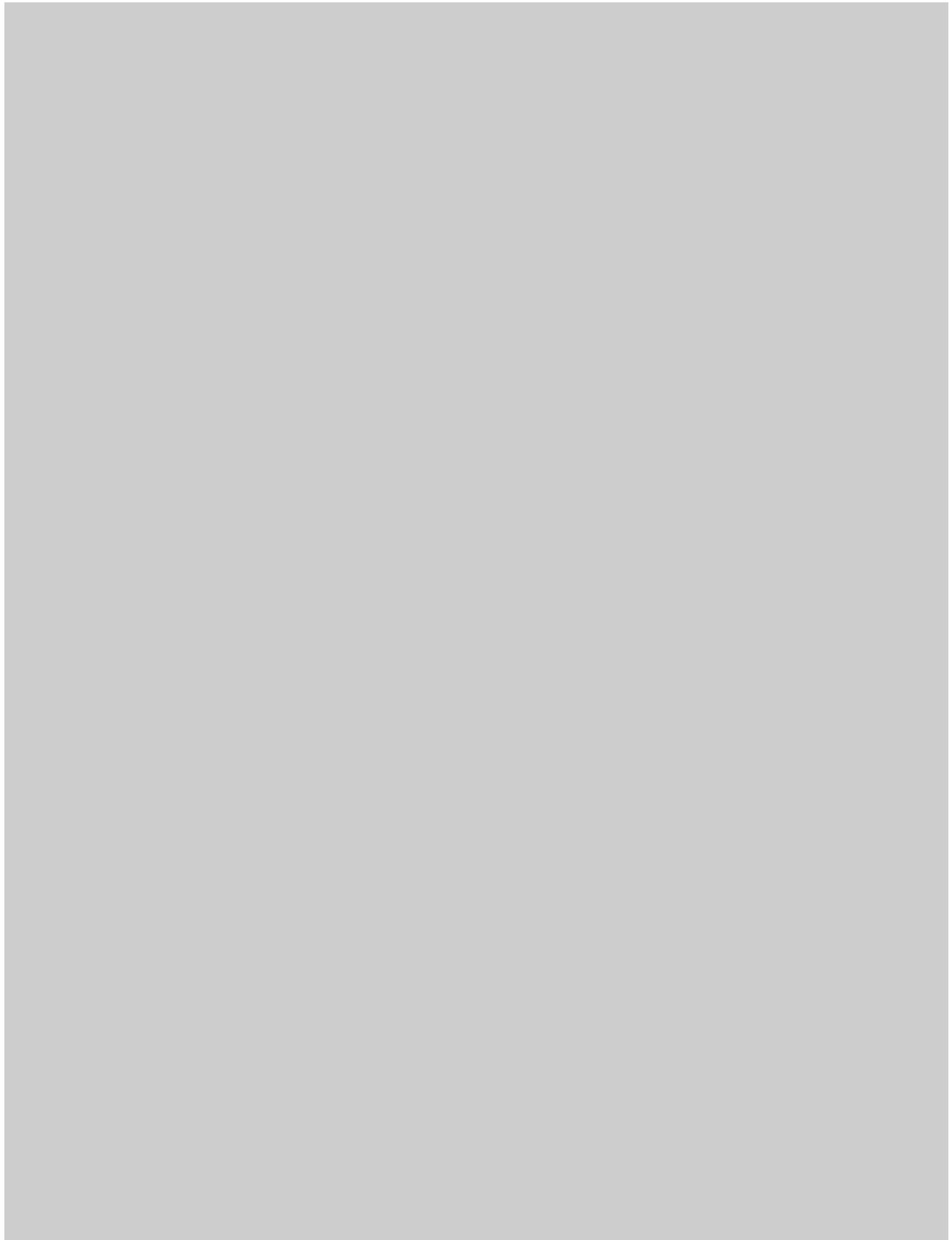
- F** Obtuse
G Right
H Straight
J Acute
- 45 John is going to make three kinds of cookies. He will need $2\frac{1}{3}$ cups flour for the first kind, $2\frac{1}{4}$ cups flour for the second kind, and $3\frac{1}{3}$ cups flour for the third kind. How much flour does John need for all three kinds of cookies?
- A** $8\frac{1}{12}$ cups
B $7\frac{11}{12}$ cups
C $5\frac{2}{3}$ cups
D $5\frac{7}{12}$ cups

- 46 Pedro bought a 2-liter bottle of soda. What is the volume of the bottle in milliliters?

- F** 20,000 mL
G 2,000 mL
H 200 mL
J 20 mL

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





READING

The Bank Deposit

- 1 Jennifer watched as her mother carefully counted the money from the cash register and filled out the morning's bank deposit slip. It was the first week of summer vacation, and Jennifer was finally getting the chance to work a real job. Mom and Dad had agreed to let her work part-time at the family diner to earn enough money to buy the new computer she wanted. Jennifer was in charge of cleaning the tables after people finished eating. She worked hard and tried to do a good job to show her parents that they had made a good decision. She wished she could do more than just clean up, but her mother said she was too young to take orders or cook meals.
- 2 "It must be taking your father longer than he expected," Mom said, glancing at the door. Normally Mom would walk across the street to the bank and deposit the money right away. But Dad had taken their car in for some repair work that morning and wasn't back yet. "I guess I'll just have to take this money to the bank later," Mom said, walking into her office. She locked the money in a small lockbox in the desk drawer and put the key into her apron pocket.
- 3 "I can take it for you, Mom," Jennifer said, trying to be as helpful as possible.
- 4 "That's O.K.," Mom said. "I need you to do just what you're doing."
- 5 Jennifer frowned. She knew that her mother didn't trust her with the money. "The bank's right across the street," she muttered.
- 6 "Oh, no!" Mom said after refilling a customer's coffee cup. "We're almost out of coffee, and the supply truck won't get here for another hour." She looked at her watch nervously. "Jennifer," she said, reaching into her apron pocket and taking out some folded money, "will you go across the street to Fred's Market and buy a can of coffee?"
- 7 "Sure," Jennifer said, taking the money from her mother. She went back to the office to grab her jacket while Mom resumed waiting on customers. As Jennifer was putting the money into her pocket, she

My notes about what I am
reading

saw the key to the lockbox tucked between the folded dollar bills. Jennifer remembered the bank deposit in the desk drawer. She knew it was ready to take to the bank. "I'll surprise Mom and take the deposit to the bank on my way to the market," she thought. "Then she'll see that I can be trusted." She took the key, unlocked the lockbox, and took out the bank bag. "I'll be right back," she said as she headed out the door.

8 "O.K. Thanks, Jennifer," Mom called after her.

9 Jennifer walked across the street to the bank. "I should put the money in the bank first," she said to herself. But when she opened the bank door, she saw a long line. "Maybe there won't be as many people after I go to the market," she thought. She walked next door to the market and found the coffee aisle. As she grabbed a can of coffee, she set the bank bag down and reached into her pocket to get the money for her purchase. Jennifer counted the dollar bills out as she walked toward the front of the store. Then she went up to the cashier and paid for the coffee.



10 "Thanks, honey," Mom said when Jennifer walked into the diner. "Why don't you open the can and make a pot of coffee? Do you remember how?"

11 "Sure!" Jennifer said. She could see that Mom was busy, and it felt good to be helping out. Just as she was starting the pot of coffee, her father returned.

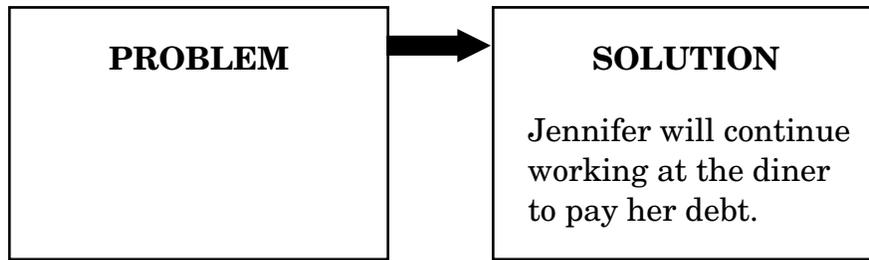
12 "Hi, Dad," Jennifer said.

13 "Frank," Mom said as Dad walked into the diner, "can you take the money to the bank before you get started? It's in the desk drawer." Jennifer felt her stomach drop. The bank deposit! Her heart raced. What had she done with the bank deposit?

- 14 “I don’t see it,” Dad called a moment later from the office.
- 15 “Well, I put it right there,” Mom said, walking back to the office. After frantically searching the office, she sighed. “Somebody must have sneaked in here and taken it while I was busy with customers and Jennifer was at the store.”
- 16 “We should call the police,” Dad said.
- 17 “Mom, Dad,” Jennifer said hesitantly as she approached them, “I lost the bank deposit.”
- 18 “What?” Mom asked, puzzled. Jennifer explained as quickly as she could. “You must have left it at the market,” Mom said. “Let’s go look. Maybe someone turned it in.” Jennifer and Mom dashed across the street to Fred’s Market and asked the manager if anyone had turned in a bank bag. No one had. Then they retraced Jennifer’s steps through the store. Finally Jennifer spotted the bank bag lying on the floor, under the edge of a shelf.
- 19 “Mom,” Jennifer said, “I found it!”
- 20 Mom opened the bag nervously. “Well,” she said, frowning, “the money is gone.” Jennifer hung her head. “But the checks and the credit card receipts are still here, so it’s not a total loss.” Jennifer felt terrible. She went with her mother to the bank to deposit the checks. Then they went back to the diner and explained everything to her father.
- 21 “I just wanted to show you and Mom that I could do more than wipe tables,” Jennifer finished.
- 22 “Jennifer,” Dad said, “I know you were trying to help, but that doesn’t excuse what you’ve done.”
- 23 “I guess you don’t want me to work here anymore,” she said softly, her face burning red. Jennifer felt sick to her stomach. She couldn’t even look at her parents.
- 24 “On the contrary,” Dad said. “You need to work to reimburse the diner for the money you lost. And after you’ve paid your debt, you might still be able to save enough for that new computer.”

- 1 What is paragraph 1 mainly about?
- A Jennifer's job at the family diner
 - B The money from the cash register
 - C Jennifer's summer vacation
 - D The new computer Jennifer wants
- 2 Why doesn't Jennifer deposit the money before buying the coffee?
- F The grocery store is closing for lunch.
 - G The line at the bank is too long.
 - H She is afraid the store might run out of coffee.
 - J She needs to use the deposit money to buy the coffee.
- 3 How does Jennifer change by the end of the story?
- A She feels she should be trusted more.
 - B She decides to work at the grocery store.
 - C She is eager to work at the diner.
 - D She realizes she should listen to her parents.
- 4 Which sentence from the story best shows that Jennifer is ashamed of what she has done?
- F *"I guess you don't want me to work here anymore," she said softly, her face burning red.*
 - G *"I just wanted to show you and Mom that I could do more than wipe tables," Jennifer finished.*
 - H *"Jennifer," Dad said, "I know you were trying to help, but that doesn't excuse what you've done."*
 - J *"The bank's right across the street," she muttered.*
- 5 The reader can conclude that Jennifer —
- A has taken a deposit to the bank before
 - B isn't very good at cleaning the tables
 - C isn't used to working so many hours
 - D is the only helper her mother has that morning
- 6 Why doesn't Jennifer tell her mother about the bank deposit as soon as she gets back from the grocery store?
- F Her mother is too busy unloading the supply truck.
 - G She has forgotten about the bank deposit.
 - H Her mother needs her to clean more tables.
 - J She is too upset to tell her mother that she lost the bank deposit.
- 7 What does the word resumed mean in paragraph 7?
- A Started again
 - B Remembered
 - C Asked again
 - D Communicated
- 8 Paragraph 7 is important to the story because it helps the reader understand —
- F why Jennifer decides to take the deposit
 - G how much money is in the deposit
 - H why Jennifer's mother gives her the key to the lockbox
 - J how Jennifer shows her parents she can work hard

9 Look at the diagram of information from the story.



Which of these details belongs in the box labeled “Problem”?

- A Jennifer loses the money for her new computer.
- B Jennifer goes to run an errand, and the diner is robbed.
- C Jennifer loses part of the bank deposit at the store.
- D Jennifer’s mother needs help at the diner.

10 Which sentence from the story supports the idea that Jennifer likes to work in the diner?

- F *Jennifer watched as her mother carefully counted the money from the cash register and filled out the morning’s bank deposit slip.*
- G *She knew that her mother didn’t trust her with the money.*
- H *“I’ll surprise Mom and take the deposit to the bank on my way to the market,” she thought.*
- J *She could see that Mom was busy, and it felt good to be helping out.*

11 Why does Jennifer’s heart race when her mother asks her father to take the money to the bank?

- A Her stomach is upset from the coffee.
- B She feels guilty for lying to her parents.
- C She realizes she has lost the deposit.
- D Her father knows she took the money.



A Newspaper for the Students by the Students

April 19, 2003

Weekly Edition

On April 23 the Clear Springs sixth-grade class will visit the Smithsonian's National Air and Space Museum. This issue of the Clear Springs Cougar will give readers information about the museum and its history. The next issue will describe the students' visit.

**The Smithsonian Institution—
How It Started**

by Troy Mason

1 There is still mystery surrounding how the Smithsonian Institution was founded. In his will James Smithson gave more than \$500,000 to the United States. He wanted the government to establish an institution to help increase and spread knowledge. Congress accepted his gift and in 1846 created the Smithsonian Institution in Washington, D.C. No one is really sure why Mr. Smithson gave this money to our country. He wasn't a U.S. citizen. In fact, Smithson was born in France, grew up in England, and was educated there at Oxford University. He never even set foot in the United States.

2 The Smithsonian Institution had a humble beginning. It started in a large stone building called the Castle. At first the Castle was home to a variety of objects from the areas of art and natural history.

The Castle also had a chemistry laboratory and a library.

Since 1846 the Smithsonian has grown into a multibuilding organization. It now includes a zoo and 16 museums. The National Air and Space Museum, which opened in 1976, is one of the Smithsonian's most popular museums.

3

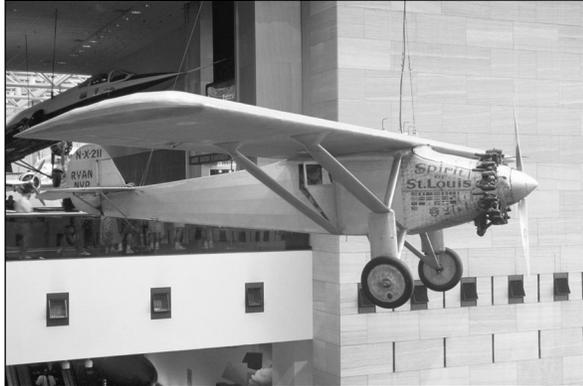


The National Air and Space Museum is one of the Smithsonian's most popular museums.

■ see Smithsonian, page 2

4 The National Air and Space Museum is dedicated to the history of flying. The museum has more than 20 galleries, a theater, and a planetarium. Inside the museum are many famous aircraft,

including the *Wright 1903 Flyer*, also known as the *Kitty Hawk*. On December 17, 1903, Wilbur and Orville Wright made the world's first flights in the *Kitty Hawk*. Also displayed is the *Spirit of St. Louis*, the plane in which Charles Lindbergh made the first solo flight across the Atlantic Ocean.



Charles Lindbergh flew across the Atlantic in the *Spirit of St. Louis*.

The museum holds some of the first U.S. spacecraft. These include John Glenn's *Mercury Friendship 7* capsule, which was the first U.S. spacecraft to orbit Earth. Also on display is the *Apollo 11* command module *Columbia*. In 1969 the *Columbia's* lunar module *Eagle* was the first spacecraft to land on the moon.

5

Photograph courtesy of © Richard T. Nowitz/CORBIS.



A Newspaper for the Students by the Students

April 26, 2003

Weekly Edition

Sixth Graders Visit the National Air and Space Museum

by Chris Allen

1 Our English teachers would have been proud! We, the sixth-grade class of Clear Springs Middle School, must have used every synonym for the word *awesome* that there is. And awesome is exactly what the National Air and Space Museum is. “Cool” and “neat” were just some of the expressions students used to describe the impressive museum tour. It is easy to understand why more than nine million people visit the museum every year. Almost every event in the history of human flight is represented in one of the museum’s many galleries. It was truly a phenomenal experience to reach out and touch the famous airplanes and amazing spaceships that we’ve all heard and read about.



The *Kitty Hawk* and command module *Columbia* are just two of the many displays at the National Air and Space Museum.

The Wright Brothers’ *Kitty Hawk*

2 The *Kitty Hawk*, officially called the *Wright 1903 Flyer*, was the first famous aircraft that we saw. Standing under the long, narrow wings, we found it hard to imagine flying in what looks like a paper airplane. It is incredible to think that 100 years ago, two brothers who were bicycle mechanics made a plane of wood and fabric that flew for the first time. Orville Wright piloted the plane, which flew for 120 feet and remained in the air for 12 seconds. The brothers made three more flights that day. It was really inspiring for all of us to hear about two young men who followed their dream and changed the world with their invention.

Spaceflight

3 Another crowd pleaser was the gallery that houses the first U.S. spacecraft. John Glenn’s *Mercury Friendship 7* capsule is by

■ see Sixth Graders, page 2

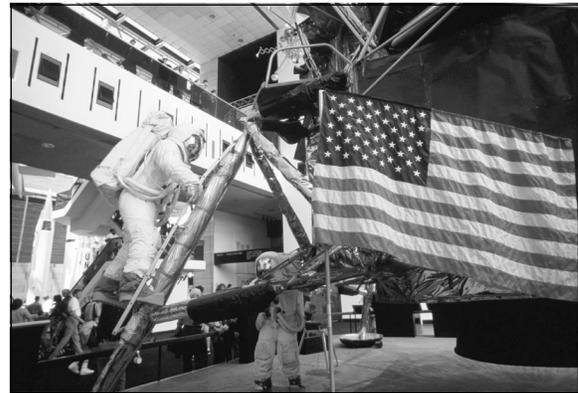
Photograph courtesy of © Richard Nowitz/CORBIS.

far the most fascinating space exhibit in the museum. On Glenn's 1962 flight, he alone circled Earth three times in less than five hours. Looking at the small cylinder that was the first module, we found it hard to believe that it weighs almost 3,000 pounds. The black marks on the module from the heat of reentering Earth's atmosphere made the dangers of space travel seem more real to us.

4 The next display we saw was the *Apollo 11* mission command module *Columbia*. Astronauts Neil Armstrong and Edwin "Buzz" Aldrin, Jr., were the first men to land on the moon. On July 20, 1969, they touched down on a rocky plain of the moon in the lunar module *Eagle*. They explored the moon on foot and returned to the module with surface material. We were actually able to look at these moon rocks. It was hard to believe that these rocks were once part of the moon we see almost every night. Many of us wondered aloud whether there would be space travel in our future. I wondered whether I would one day touch the moon.

Other Sights

5 The Lockheed Martin IMAX Theater, with its five-story-high movie screen, was also a very popular part of the museum.



A display depicts astronauts proudly placing the U.S. flag on the moon.

The flight film that we watched made us feel as if we were actually on board a high-speed jet airplane. At one point during the movie, several students swayed back and forth as the plane turned spirals in the sky. One student compared it to riding a roller coaster.

A Trip Worth Taking

The National Air and Space Museum is definitely a place worth visiting. Touring the museum was an incredible experience for us. A big THANK YOU to James Smithson, who made this museum available to everyone!

6

Photograph courtesy of © James P. Blair/CORBIS.

**Use “The Smithsonian Institution—How It Started”
(pp. 33–34) to answer questions 12–16.**

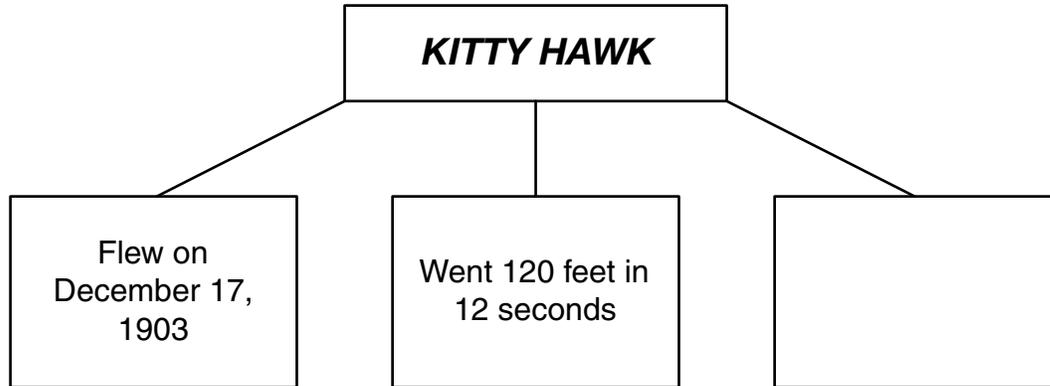
- 12** The *Spirit of St. Louis* was the plane —
- F** also known as *Kitty Hawk*
 - G** flown by Wilbur Wright
 - H** flown by Lindbergh across the Atlantic
 - J** used for the world’s first flight
- 13** How has the Smithsonian changed since 1846?
- A** It now contains historical objects.
 - B** The public is now allowed to tour it.
 - C** It is now made up of several different buildings.
 - D** The museums are now located in Washington, D.C.
- 14** From information in the article, what can the reader conclude about James Smithson?
- F** He appreciated art.
 - G** He loved France.
 - H** He liked airplanes.
 - J** He valued learning.
- 15** The author probably wrote this article to —
- A** give details about the history of air travel
 - B** describe the Smithsonian Institution and its beginnings
 - C** tell about James Smithson
 - D** describe the different buildings at the Smithsonian Institution
- 16** The *Kitty Hawk* is well known because —
- F** it performed the world’s first flight
 - G** it flew across the ocean
 - H** it was flown by John Glenn
 - J** it looks as if it’s made of paper

**Use “Sixth Graders Visit the National Air and Space Museum”
(pp. 35–36) to answer questions 17–21.**

- 17 Which sentence from the article shows that the author liked the museum?
- A *At one point during the movie, several students swayed back and forth as the plane turned spirals in the sky.*
 - B *I wondered whether I would one day touch the moon.*
 - C *It is easy to understand why more than nine million people visit the museum every year.*
 - D *Our English teachers would have been proud!*
- 18 The author probably wrote this article to —
- F explain how the Smithsonian Institution was created
 - G describe the displays at the Smithsonian Institution
 - H explain how students felt about the movie at the museum
 - J describe the spacecraft that landed on the moon in 1969
- 19 What does the word impressive mean in paragraph 1?
- A Remarkable
 - B Long
 - C Boring
 - D Expensive
- 20 The author organizes this article by —
- F explaining the advantages and disadvantages of visiting the Smithsonian
 - G telling what happened during the tour from beginning to end
 - H describing the displays from most interesting to least interesting
 - J reporting an event that happened a long time ago
- 21 Paragraph 2 is mainly about —
- A the Wright brothers' first flight in the *Kitty Hawk*
 - B how the *Kitty Hawk* was made
 - C the Wright brothers' many inventions
 - D how long the *Kitty Hawk* flew

**Use “The Smithsonian Institution—How It Started” and
“Sixth Graders Visit the National Air and Space Museum”
to answer questions 22–24.**

22 Look at the diagram of information from both articles.



What belongs in the empty box?

- F** Built by two brothers who were bicycle mechanics
- G** Is not on display in the museum
- H** Flew successfully across the Atlantic Ocean
- J** Has long wings made out of paper

23 A theme found in both articles is —

- A** donating large amounts of money
- B** students’ feelings about the Smithsonian
- C** the Smithsonian’s humble beginnings
- D** great accomplishments in flight

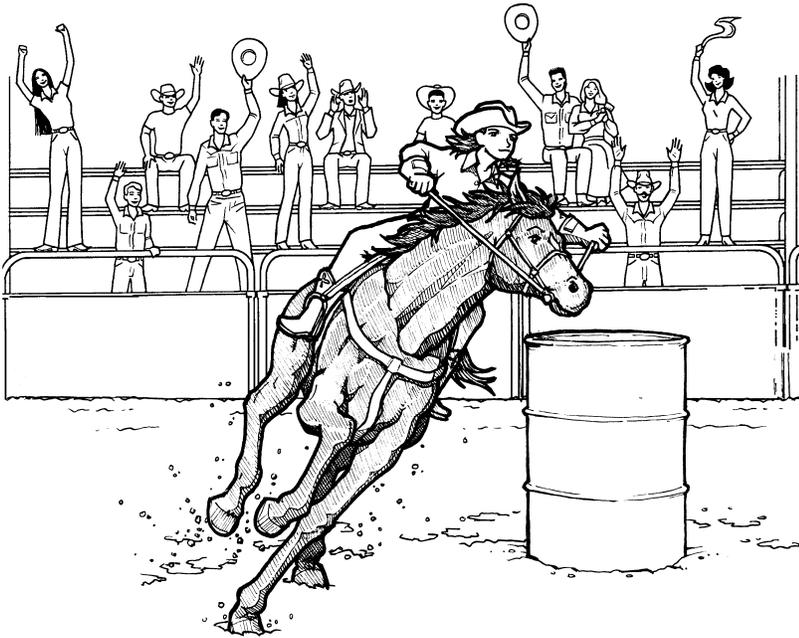
24 An idea present in both articles is —

- F** that the movie in the theater feels like a roller coaster
- G** that historical items are on display at the Smithsonian
- H** the importance of John Glenn’s solo flight
- J** the future of air and space travel

Riding to Win

- 1 Tacy waited anxiously for the gate to open and her race to begin. She could feel her horse Stubby restlessly stomping the ground. Tacy tried to pretend it was just like all her practices back at her father's ranch, but she couldn't fool herself. The rodeo crowd buzzed in the background, and the air seemed charged with excitement. "I can do this," Tacy told herself. Tacy looked over at her sister Sheri, who was always calm. Sheri had been through this many times before. Sheri smiled and gave Tacy a thumbs-up sign.
- 2 Then the gate opened, and Stubby charged out toward the first barrel. The big chestnut horse knew what to do without Tacy even guiding him. They had spent many hours practicing, so circling the barrels was automatic for both of them. But now Tacy thought Stubby was going a little too fast. She tugged on the reins and guided him carefully around the first barrel. Stubby seemed to fight her, as if to say, "I can do this. Let me show you." But Tacy didn't want to mess up. It was the first of two rides to determine the winner of the Ranger County Rodeo Junior Barrel Racing Championship. Riders had two chances to circle the three barrels with their horse and return to the starting point. The contestant with the fastest combined time would win.
- 3 After Stubby got around the first barrel, Tacy let him gain speed across the arena toward the second barrel. She could feel the powerful horse digging into the ground and picking up speed. Tacy knew they needed to be fast to have a chance of winning, but she also knew that missing a barrel or knocking one over could put her in last place. She didn't trust her racing skills that much yet. She pulled back on the reins, just a little, to make sure that Stubby was not going too fast. Stubby snorted as they circled the second barrel. Now he shot toward the final barrel at the end of the arena. Tacy slowed him again, leaning into the turn as they rounded the barrel. She urged him forward, and he sped back to the line. Tacy looked for her time: 19.6 seconds. Not bad for the newest rider in the championship. So far that put her in fourth place out of more than twenty riders.

My notes about what I am
reading



- 4 Now it was her sister's second turn. "Ride carefully," Tacy said as her sister waited at the line.
- 5 "Lynda Adams finished her first race in 18.1," Sheri reminded her. "I'm not going to beat that by riding carefully."
- 6 "But—" Tacy started to protest as the gate opened and Sheri raced out. She was riding a black mare named Beetle. Beetle and Sheri headed full speed toward the first barrel. "Slow down. Slow down," Tacy whispered. Tacy had watched her sister race before but never this fast. She was sure that Sheri would knock the barrel over. Beetle's front hooves dug in, and the mare's hind legs swiveled hard, looking as if they would wind around the barrel. Somehow Sheri and Beetle made it safely around and began racing for the second barrel. Tacy looked at the clock; Sheri had made good time. "Be careful," she pleaded under her breath, but Sheri and Beetle charged full speed. Again, somehow, Beetle managed to get cleanly around the barrel. Now they were charging for the last barrel. Tacy could see they were making great time. She could hear the roar of the crowd building. "Maybe Sheri can beat Lynda's time!" Tacy thought. But then Beetle cut around the last barrel too early, knocking it down. The crowd groaned as Sheri and Beetle raced back to the start gate. Their time was 18.0, but a five-second penalty was added for knocking one barrel over, bringing their time to 23.0 seconds—last place.

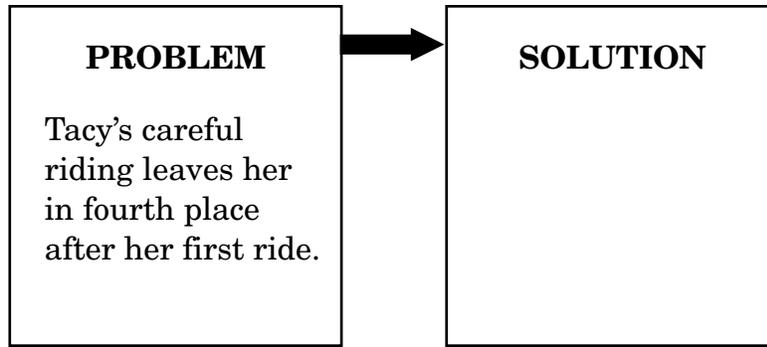
7 “Sheri, why weren’t you more careful?” Tacy asked her sister in surprise. “Now you don’t have a chance to win.”

8 “I told you, Tacy,” Sheri said. “I didn’t have a chance to win anyway if I rode carefully. So I rode to win.” Tacy walked away slowly. She had another ride to make. She might still be able to finish in the top three. “I’m not like you, Tacy,” Sheri called after her. “I try my best to win, and if I lose, well, I’ll just try again next time.”

9 Tacy mounted Stubby and got ready for her second ride. Sheri’s words were still in her ears. Lynda Adams was just finishing her second ride. Her horse had slipped a little, and she had finished her second run in 19.8 seconds. Tacy did the math in her head. She needed to finish in 18.0 seconds to beat Lynda. “That’s crazy,” she thought. She had ridden that fast in practice but never in a real rodeo. If Stubby slipped, she wouldn’t finish in the top three. She looked over at Sheri. Her sister smiled and clapped her hands. “Come on, Tacy!” she yelled. “You can do it!”

10 But it was Sheri’s earlier words that echoed through Tacy’s mind as the gate opened: “*I’m not like you, Tacy.*” Stubby seemed to be charging too hard. She started to pull him back, but something stopped her. Instead, she leaned into the turn and let her horse swing around toward the first barrel. Stubby had never felt so fast. The ground seemed to thunder under them as he tore for the second barrel. In a dizzying whirl, Stubby was around it and streaking toward the third and final turn. Tacy could hear the noise of the crowd rising as they saw that she had a chance. Now Stubby turned hard around the last barrel, his hind legs bumping it as he dug for the finish. “That’s it,” Tacy thought. With a five-second penalty, she would finish near the bottom. But the crowd noise was increasing! The barrel had wobbled but hadn’t fallen. As Stubby flashed across the line, Tacy saw her time: 17.9 seconds! She had done it. She had won! She looked at Sheri, who was jumping up and down. “Way to go, Tacy!” she shouted. “Way to go!”

25 Read the diagram of information from the story.



What belongs in the box labeled "Solution"?

- A Tacy relies on Sheri to beat Lynda Adams.
- B Tacy rides Stubby as fast as she can and wins.
- C Tacy continues to ride carefully and is happy with her time.
- D Tacy rides Stubby, and his leg bumps the barrel.

26 Which statement best reflects Tacy's change in attitude at the end of the story?

- F Tacy thinks barrel racing isn't important after all.
- G Tacy realizes that being careful is more important than winning.
- H Tacy learns that she can't win if she is afraid to lose.
- J Tacy sees that she is a better rider than Lynda Adams.

27 In paragraph 8, Sheri says, "I'm not like you," because Sheri —

- A is a better rider than Tacy
- B wants to make Tacy feel better
- C thinks Tacy is upset about being in fourth place
- D isn't afraid to make mistakes

28 What happens during Lynda Adams's second ride?

- F** Her horse knocks over a barrel.
- G** She beats her first time.
- H** Her horse slips.
- J** She finishes in last place.

29 In paragraph 10, the author creates a mood of —

- A** doubt
- B** suspense
- C** caution
- D** disappointment

30 The crowd's cheers get louder during Tacy's second ride because people can tell —

- F** Tacy has a chance to win
- G** Stubby is running too fast
- H** Tacy is getting dizzy
- J** Stubby will knock over a barrel

31 The author tells this story from Tacy's point of view to help the reader understand —

- A** how Tacy trained her horse
- B** what time a barrel racer has to beat
- C** why Tacy's attitude changes
- D** why Sheri decides to ride fast

32 Read the first sentence of a summary of the story.

<p>Summary of "Riding to Win"</p> <p><u>Tacy is racing her horse Stubby in the Ranger County</u> <u>Rodeo Junior Barrel Racing Championship.</u></p> <p>_____</p> <p>_____</p>
--

Which set of sentences best completes the summary?

- F** Tacy is a little scared as she waits for the gate to open to begin her first ride. She looks over at her sister, who gives her the thumbs-up sign.
- G** Tacy rides carefully during her first ride. After her ride she is in fourth place with one more ride to go.
- H** Tacy watches her sister Sheri and Sheri's horse Beetle. Tacy thinks Sheri is riding too fast and wants her to slow down.
- J** Tacy rides cautiously during her first ride. After watching her sister Sheri's ride, she lets Stubby run full speed in her second ride and wins.

33 What can the reader conclude from information about barrel racing provided in this story?

- A** Only the fastest time of the two rides is counted.
- B** The riders have to race around only two of the three barrels.
- C** There is not a time penalty for hitting a barrel that doesn't fall over.
- D** The judges must decide who is the best rider.

34 The author uses Tacy's memory of her sister's words to show —

- F** why Tacy is inspired to ride fast
- G** that Tacy will never forget them
- H** that Tacy is not concentrating on her ride
- J** how angry Tacy is with Sheri

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



Heroes of Today

A Celebration of People



June 2002

Issue 3, Vol. 5

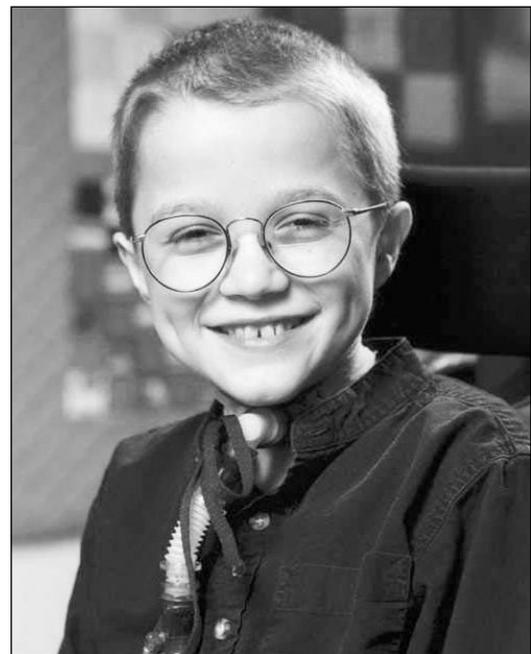
Mattie Stepanek, Poet-Hero

by S. L. Dulak

1 Mattie Stepanek is very busy. He speaks at conferences and participates in fund-raising events. He has been a guest on television shows in Chicago and New York City. He has written two number-one best-sellers. He owns a motorized scooter that he calls Slick. Although this sounds like an exciting life, Mattie has to deal with many hardships as well. Mattie is an 11-year-old boy with a life-threatening disease.

2 Matthew Joseph Thaddeus Stepanek likes to be called Mattie. He was born with a rare form of muscular dystrophy, or MD for short. MD interferes with the body's ability to breathe and also affects the heart. Mattie's muscles have become so weak that he has a hard time walking. His scooter is a motorized wheelchair. He must take a portable oxygen tank everywhere he goes. These things remind Mattie of the seriousness of his disease, as do the many time-consuming medical treatments he has to have each day. But despite the disease, Mattie enjoys many of the same activities as other children his age. He loves to watch baseball and read. He has favorite games and toys. He even has a first-degree black belt in a martial art. And like other 11-year-olds, he has schoolwork. Because of the complications related to his disease, Mattie is homeschooled instead of going to a regular school.

3 Every summer Mattie spends one week at Camp Maria, the Muscular Dystrophy Association camp in Leonardtown, Maryland. The camp motto is "Friends Helping Friends." A friend is assigned to help each



Mattie J.T. Stepanek, National Goodwill Ambassador of the Muscular Dystrophy Association.

camper. Mattie's friend helps him with arts and crafts, wheelchair football and baseball, singing, and dancing. At the close of the session, campers write their special wishes on a piece of paper. The papers are then put into a basket, which is tied to balloons and released into the air. The balloons sail into the sky, launching the wishes.

4 For the past five years, Mattie has made the same three wishes: to have some of the thousands of poems he has written published in a book, to meet one of his heroes, former U.S. president Jimmy Carter, and to have his poems read on television. Now Mattie believes the balloon wishes work.

5 Mattie's first wish came true during one of his numerous stays in the hospital. Cheryl and Peter Barnes, founders of VSP Books, read some of Mattie's poems and knew right away that they were special. In July 2001 the Barneses agreed to print some of the poems in a book Mattie entitled *Heartsongs*. His second book, *Journey Through Heartsongs*, was published in October 2001. More than 450,000 copies of both books have been sold.

6 While Mattie was in the hospital in Washington, D.C., another wish came true. He spoke on the telephone with Jimmy Carter. During their conversation Mattie didn't mention his disease. Instead, he and Mr. Carter talked of bringing peace to countries at war, such as Bosnia. Mattie thinks Jimmy Carter is the perfect hero. Since his presidency ended in 1981, Mr. Carter has worked for world peace and human rights. Mattie, too, wants to grow up to be a peacemaker and a politician.

7 On October 19, 2001, the last of his wishes came true. Mattie was a guest on Oprah Winfrey's nationally televised talk show. He talked with Ms. Winfrey about his desire for peace in the world. She read several of Mattie's poems on television. Some of Mattie's poems are about the ordeal of living with a serious disease. But Mattie doesn't always write about the hardships of life. Most of his poems are about hope, peace, and wisdom.

8 Mattie is the Muscular Dystrophy Association's 2002 National Goodwill Ambassador. As a spokesperson for Children's Hospice International, he speaks on behalf of sick children and their families. Although he has received many honors, Mattie feels that his greatest achievement is being alive today, especially since he has had many close calls throughout the years. Mattie continues to spread his message of peace and goodwill, hoping to inspire people to help others.

9 Mattie tries to live his life by three ideas. The first is to play in the puddles after every storm. The second is to celebrate life every day. The third is to never give up trying to reach what you want. Mattie's life is certainly a reflection of each of these principles.

Photograph courtesy of © the Muscular Dystrophy Association.

- 35** Which sentence from the article shows the reader Mattie's attitude toward life?
- A** *Mattie is an 11-year-old boy with a life-threatening disease.*
 - B** *Most of his poems are about hope, peace, and wisdom.*
 - C** *He must take a portable oxygen tank everywhere he goes.*
 - D** *He was born with a rare form of muscular dystrophy, or MD for short.*
- 36** What was the first step in getting Mattie's poems published?
- F** Mattie sent them to former president Jimmy Carter.
 - G** Oprah Winfrey decided to publish them after she read them on her show.
 - H** The founders of a book company read Mattie's poems.
 - J** Cheryl and Peter Barnes found them in one of Mattie's wish balloons.
- 37** What does Mattie consider to be his greatest accomplishment?
- A** Being alive
 - B** Encouraging others
 - C** Being a spokesperson
 - D** Spreading peace
- 38** Which idea from the article shows that Mattie doesn't think only about his own problems?
- F** He has written two best-selling books.
 - G** Some of the poems he writes are about living with a serious illness.
 - H** He has been a guest on a talk show where some of his poems were read.
 - J** When he spoke to former president Carter, Mattie did not discuss his illness.
- 39** What is the author's purpose in this article?
- A** To describe what it is like to suffer from a rare disease
 - B** To persuade readers to be more involved in helping others
 - C** To tell readers about a boy who is fighting a rare disease
 - D** To persuade readers to visit Camp Maria

40 Read the first part of the summary about the article.

Summary of “Mattie Stepanek, Poet-Hero”

Despite having a rare form of muscular dystrophy, Mattie Stepanek enjoys many of the same things as other kids, such as learning a martial art and attending summer camp. However, Mattie is unique in many ways.

Which information best completes the summary?

- F** He has many difficulties because of his disease. He can’t walk, but he has a motorized wheelchair he calls Slick. He has to take an oxygen tank everywhere he goes to help him breathe. He has many daily medical treatments.
- G** He speaks at conferences and other places to try to spread his message of peace. He also appeared on Oprah Winfrey’s talk show. Oprah Winfrey read some of his poems on television.
- H** His wish to talk with former president Carter came true. He spoke to Carter about the need for peace in particular countries around the world. Mattie hopes to be a peacemaker when he grows up.
- J** He has had poems published, been on television, and spoken with a former president. Mattie also speaks on behalf of other sick children and about world peace.

41 Which sentence from the article best shows the reader that Mattie is a determined person?

- A** *The third is to never give up trying to reach what you want.*
- B** *He has written two number-one best-sellers.*
- C** *He speaks at conferences and participates in fund-raising events.*
- D** *Now Mattie believes the balloon wishes work.*

42 What is paragraph 2 mainly about?

- F** The disease that Mattie has
- G** Mattie’s black belt in a martial art
- H** Slick, Mattie’s motorized wheelchair
- J** Mattie’s daily medical treatments

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

