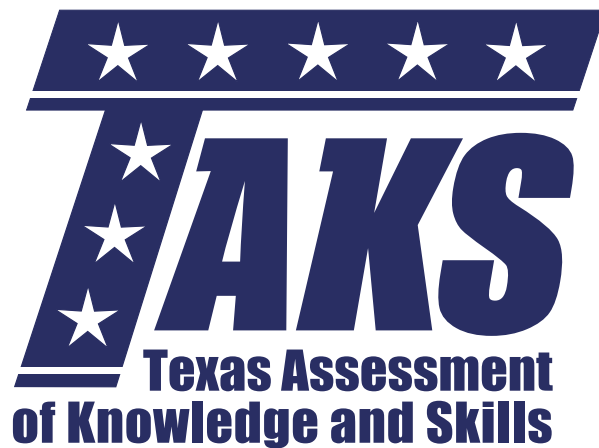


STUDENT NAME _____



**GRADE 5
MATHEMATICS
READING
SCIENCE**

Administered Spring 2003

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 $P = 2(l + w)$
Area	square	$A = s^2$
	rectangle	$A = lw$ or $A = bh$
	triangle	$A = \frac{1}{2}bh$ or $A = \frac{bh}{2}$

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

Which digit is in the thousands place in the number 4,861,392?

- A 6
- B 4
- C 1
- D Not Here

SAMPLE B

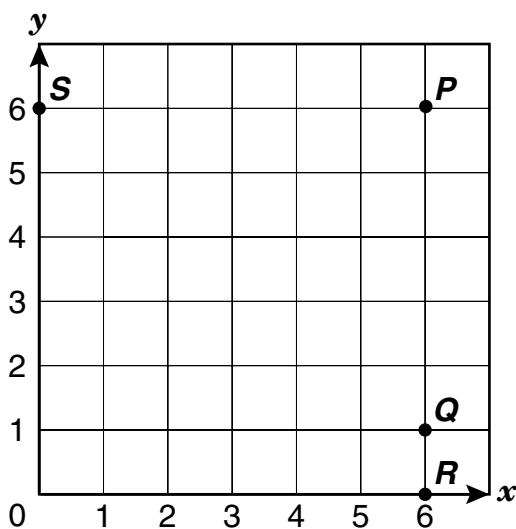
Joey has 8 books. Roberto has twice as many books as Joey has. How many books does Roberto have?

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



- 1 Stylists at a hair salon charge \$26 for each haircut. If they gave 63 haircuts, how much money did they collect, not including tips?
- A \$89
 B \$504
 C \$1,538
 D \$1,638

- 2 Which point is located at (6, 0)?



- F Point P
 G Point Q
 H Point R
 J Point S

- 3 Marcy bought 6 apples priced at \$0.35 each. She used a coupon worth \$0.50 off the total cost. Which number sentence can be used to find how much money Marcy needed in order to buy the apples?
- A $(6 \times 0.35) - 0.50 = 1.60$
 B $(6 + 0.35) + 0.50 = 6.85$
 C $(6 - 0.35) + 0.50 = 6.15$
 D $(6 \times 0.50) - 0.35 = 2.65$

- 4 Some of the greatest long-jump distances by Olympic athletes are listed in the table below.

Long-Jump Distances

Year	Distance (meters)
1968	8.90
1976	8.35
1988	8.72
1992	8.67

According to this table, in which year was the greatest long-jump distance recorded?

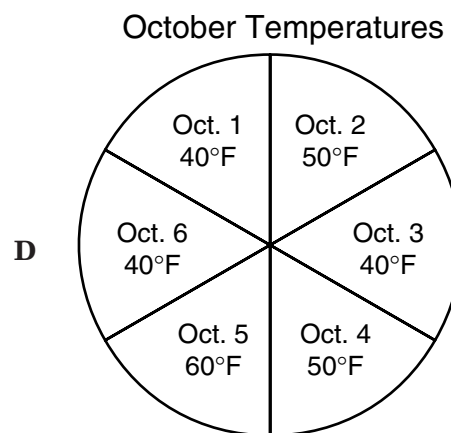
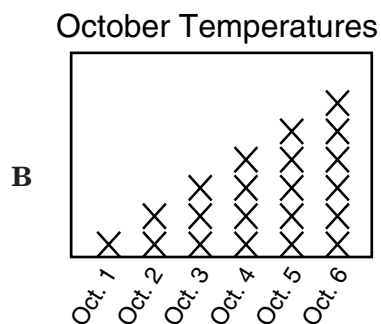
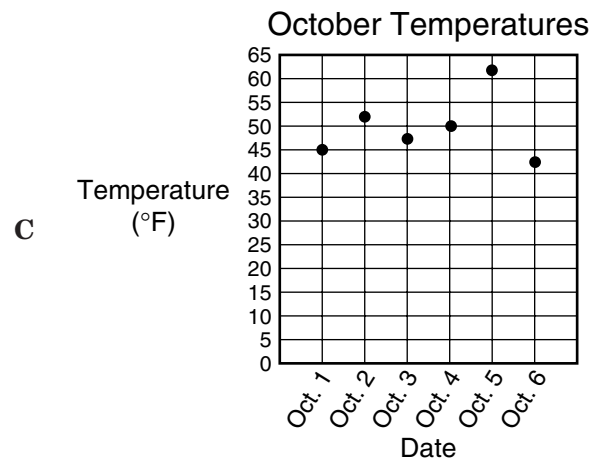
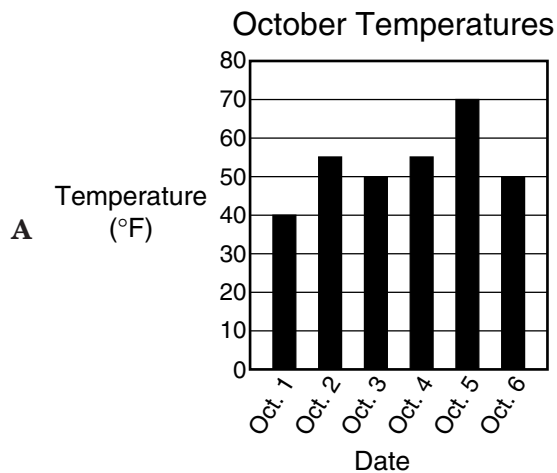
- F 1968
 G 1976
 H 1988
 J 1992

- 5 Some fifth-grade students recorded the temperature outside on 6 days in October. The data are shown in the table below.

October Temperatures

Date	Temperature (°F)
Oct. 1	45
Oct. 2	52
Oct. 3	48
Oct. 4	50
Oct. 5	61
Oct. 6	43

Which is the most appropriate graph of the data listed in the table?



- 6 Wilma ran 4 miles. She wants to find her running time per mile in minutes. What additional information does she need?
- F The number of minutes that she ran
 - G The number of feet in 4 miles
 - H The number of laps in 1 mile
 - J The number of laps that she ran

- 7 The table shows the number of tickets sold for the first 5 games of the football season.

Ticket Sales

Game	Number Sold
First	263
Second	198
Third	303
Fourth	279
Fifth	234

About how many tickets were sold for the first 5 games?

- A 800
- B 1,000
- C 1,300
- D 1,500

- 8 The leather band of Jaime's watch is broken. He needs a new watchband that measures $5\frac{1}{2}$ inches long. Use the ruler on the Mathematics Chart to measure the line segment under each watchband shown below. Which watchband is $5\frac{1}{2}$ inches long?



9 A concert area was set up with 16 rows of chairs. Each row had 12 chairs. In addition, there were 9 chairs set up on the stage. Which expression can be used to find how many chairs there were in all?

A $(12 \times 16) + (12 \times 9)$

B $(16 + 12) + 9$

C $(16 \times 12) + (16 \times 9)$

D $(16 \times 12) + 9$

10 Which of these shapes could never have perpendicular lines?

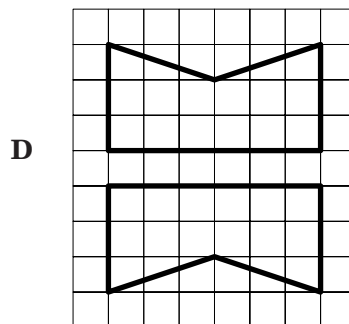
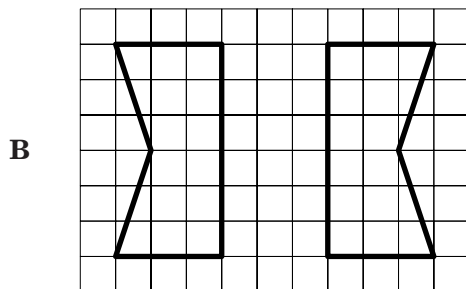
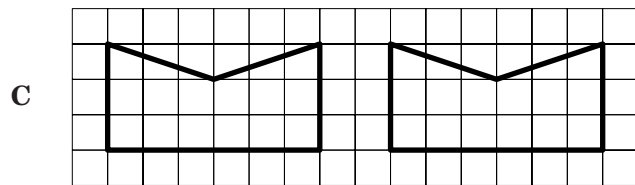
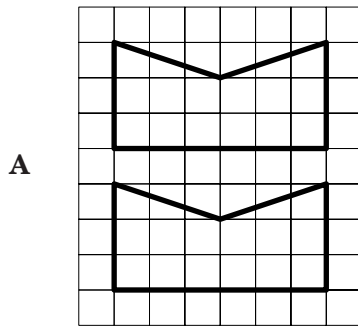
F Square

G Rectangle

H Triangle

J Circle

11 Which of these does **NOT** show a reflection?



12 Look for the pattern in the sequence of numbers below.

25, 32, 28, 35, 31, 38

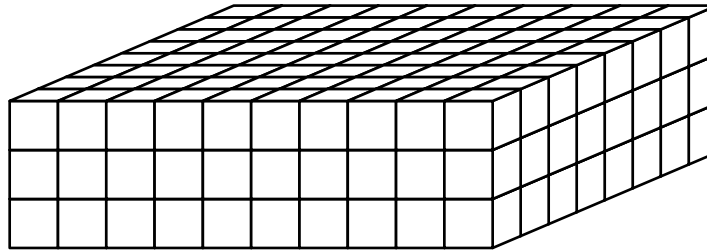
Which rule describes this pattern best?

- F Add 25, subtract 4
- G Add 13, subtract 7
- H Add 7, subtract 4
- J Add 4, subtract 7

13 Which group shows the prime factorization of the number 104?

- A $2 \times 2 \times 2 \times 13$
- B $2 \times 4 \times 13$
- C 4×26
- D $2 \times 2 \times 26$

- 14 A rectangular prism is shown below.



What is the volume of this rectangular prism?

- F 240 cubic units
- G 110 cubic units
- H 83 cubic units
- J 54 cubic units

- 15 According to a report published in 1999, the population of Dallas was 1,063,292. What does the 6 in this number represent?

- A Six thousand
- B Sixty thousand
- C Sixty-three thousand
- D Six hundred thousand

- 16 How many millimeters are equivalent to 400 centimeters?

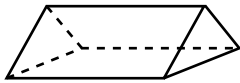
- F 0.4 mm
- G 4 mm
- H 40 mm
- J Not Here

- 17 Olivia bought some candy for \$0.58. She received \$0.42 in change. What is the least number of coins she could have received?

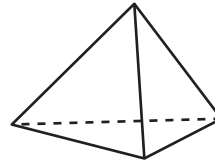
- A 4
- B 5
- C 6
- D 7

18 Which of these figures has 2 more vertices than faces?

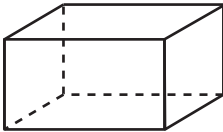
F



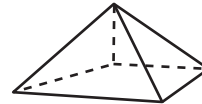
H



G



J



19 Carmen recorded the colors of the first 24 cars that drove by her house Saturday morning. The table shows the data she collected.

Car Colors

Color	White	Black	Red	Blue	Green	Other
Number of Cars	4	6	2	5	4	3

Which fraction represents the number of black cars that she counted?

A $\frac{1}{3}$

B $\frac{1}{4}$

C $\frac{1}{5}$

D $\frac{1}{6}$

20 The numbers below form a pattern.

23, 27, 33, 37, 43, 47, ...

Which of the following numbers will fit the pattern when it is extended?

F 51

G 78

H 104

J 123

21 Caleb and his brother collect seashells. Caleb has 468 seashells, and his brother has 263. How many more seashells does Caleb need to collect in order to reach his goal of 750 seashells?

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

22 Which is a prime factor of the composite number 18?

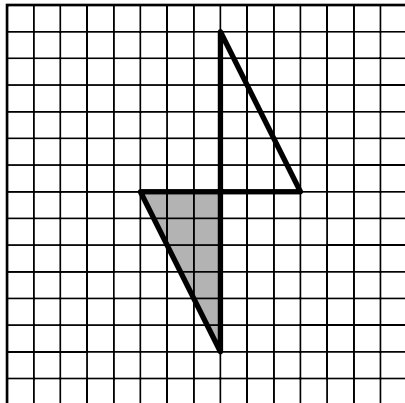
F 3

G 5

H 6

J 9

23 Which transformation of the shaded figure is represented in the diagram?



A Reflection

B Translation

C Rotation

D Not Here

24 Mr. Perkins needs 16 ounces of milk for a recipe. How many cups of milk does he need for the recipe?

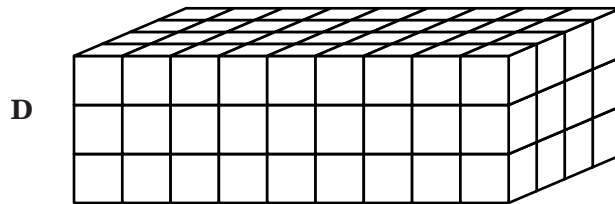
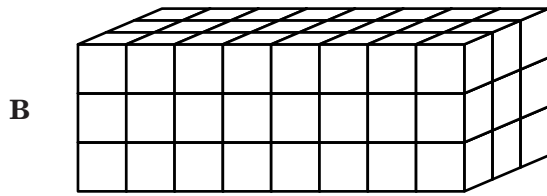
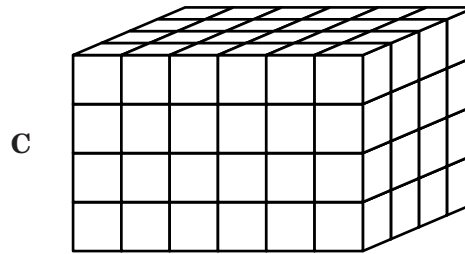
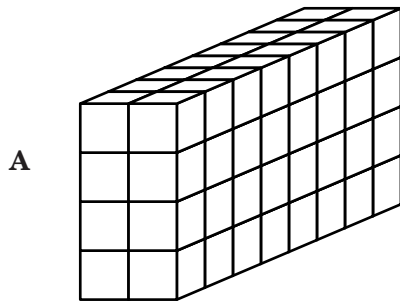
F 2 c

G 4 c

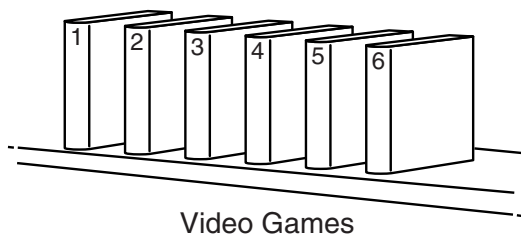
H 8 c

J Not Here

25 Which of these rectangular prisms has a volume of 96 cubic units?



26 Amy has 6 video games, as shown below. She plans to play 2 of these games today, and the order in which she plays them is not important.



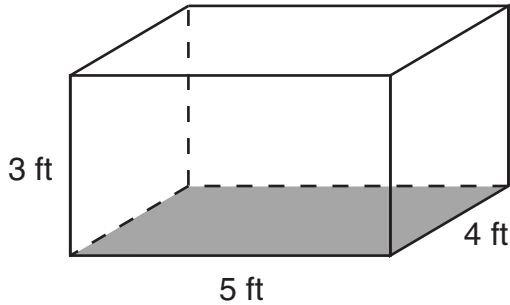
How many different combinations of 2 video games are possible?

- F 15
- G 12
- H 5
- J 4

27 Wanda is watering plants for her neighbor. She gives each plant a little less than $\frac{1}{2}$ cup of water once a week. Which amount is less than $\frac{1}{2}$ cup?

- A $\frac{3}{6}$ c
- B $\frac{3}{7}$ c
- C $\frac{4}{6}$ c
- D $\frac{4}{7}$ c

- 28 A rectangular rabbit cage is shown below.

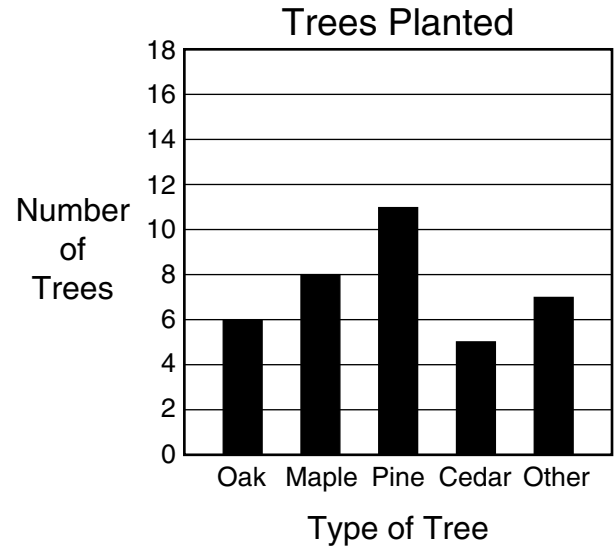


What is the perimeter of the bottom of the rabbit cage?

- F** 12 feet
G 16 feet
H 18 feet
J 20 feet
- 29 On a class field trip, there was 1 adult for every 8 students. If a total of 54 students and adults went on the trip, how many were students?

- A** 46
B 47
C 48
D 62

- 30 The graph below shows the number of trees planted at a park last year.



Which statement about the data shown on the graph is **NOT** true?

- F** A total of 37 trees were planted last year.
G The median number of trees planted was 11.
H There were 3 more maple trees than cedar trees planted.
J The range of the data is 6.
- 31 Trent is 5 feet tall. His sister Elise is 30 inches tall. What fractional part of Trent's height is Elise's height?

- A** $\frac{1}{6}$
B $\frac{1}{3}$
C $\frac{1}{2}$
D $\frac{2}{3}$

- 32 The table shows the amount of water that Nicholas drinks over a certain number of days.

Water That Nicholas Drinks

Number of Days	Ounces of Water (total)
3	144
4	192
6	288
7	336

If this pattern continues, how many ounces of water will he drink over 9 days?

- F 240 oz
G 345 oz
H 384 oz
J 432 oz
- 33 Dora's family bought a bag of oranges. There are 6 people in Dora's family. If they ate $\frac{3}{8}$ of the oranges, what fraction of the oranges remained?

- A $\frac{9}{8}$
B $\frac{5}{8}$
C $\frac{3}{14}$
D $\frac{3}{48}$

- 34 Veronica is packing 60 cookies for a class picnic. She packs 6 cookies in each bag. Which number sentence can be used to find the number of bags, b , that she will need?

- F $60 \times 6 = b$
G $60 + 6 = b$
H $60 \div 6 = b$
J $60 - 6 = b$

- 35 A trapezoid is shown below.



Which statement about the trapezoid is true?

- A The trapezoid has 3 acute angles.
B The trapezoid has 2 sides that are parallel lines.
C The trapezoid has 2 right angles.
D The trapezoid has 3 obtuse angles.

- 36** Some friends went to a movie theater by different routes. It took Malcolm twice as long as Julie to get to the theater. It took Alex 5 minutes longer than it took Julie. Which table shows a reasonable set of travel times for the 3 friends' routes?

F

Person	Time
Malcolm	18
Julie	9
Alex	13

G

Person	Time
Malcolm	16
Julie	10
Alex	15

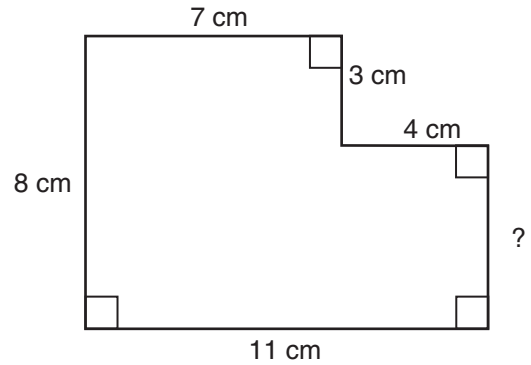
H

Person	Time
Malcolm	18
Julie	9
Alex	14

J

Person	Time
Malcolm	17
Julie	10
Alex	14

- 37** The figure below is missing a measurement for one line segment.

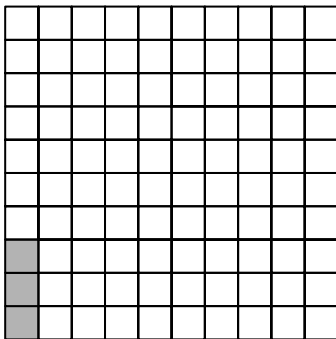


What is the missing measurement?

- A** 1 centimeter
- B** 4 centimeters
- C** 5 centimeters
- D** 8 centimeters

- 38 Alaska, the largest state in the United States, has an area of 656,424 square miles. Rhode Island, the smallest state, has an area of 1,545 square miles. What is the difference between the areas of these two states?
- F** 501,924 sq mi
G 654,879 sq mi
H 655,879 sq mi
J 657,969 sq mi

- 39 What part of the model is shaded?



- A** 0.003
B 0.03
C 0.3
D 3.0

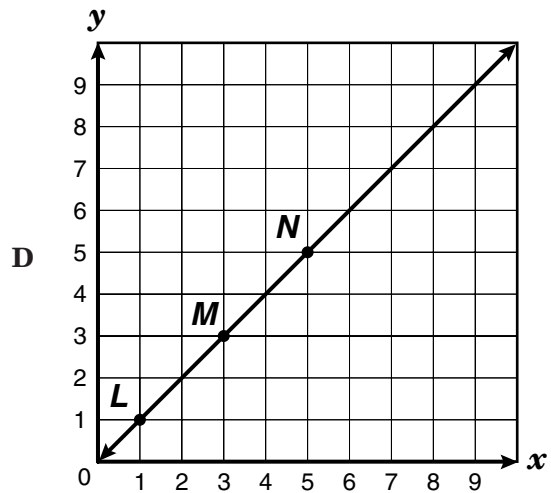
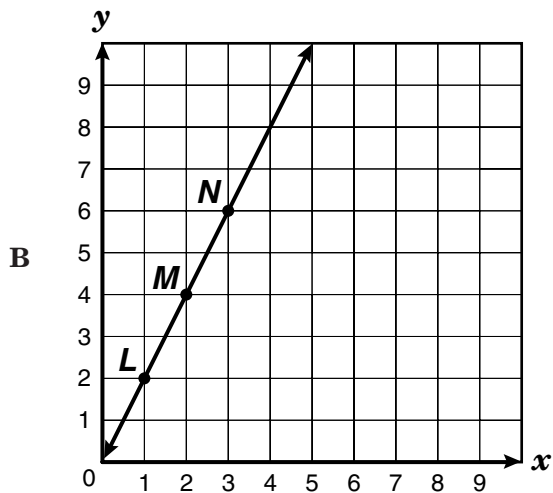
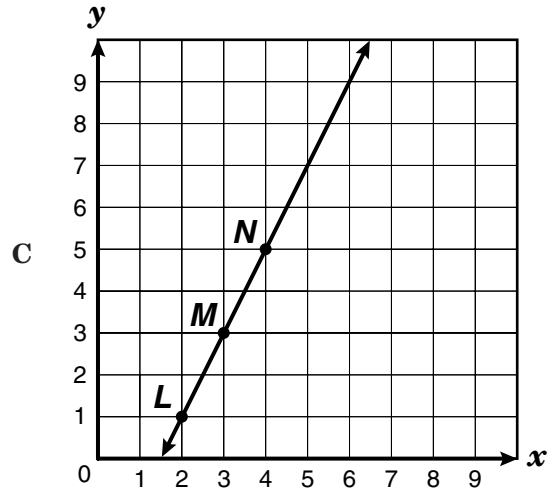
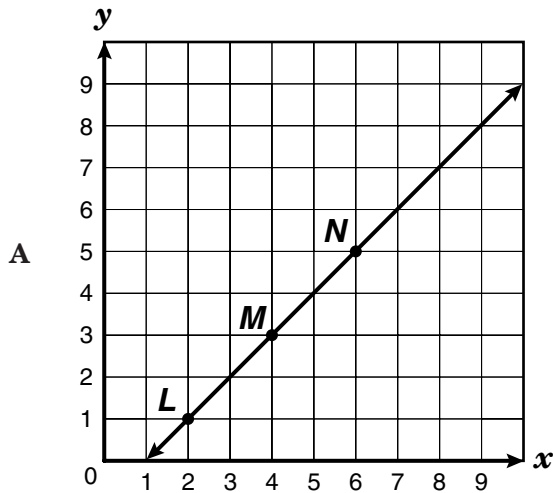
- 40 Marcus and Joe are placing books on the library shelves. They have completed $\frac{2}{3}$ of the job so far. Which fraction is equivalent to $\frac{2}{3}$?

- F** $\frac{2}{6}$
G $\frac{2}{4}$
H $\frac{4}{6}$
J $\frac{3}{2}$

41 The table below shows the coordinates of 3 points.

Point	<i>L</i>	<i>M</i>	<i>N</i>
<i>x</i>	2	4	6
<i>y</i>	1	3	5

Which graph shows the line containing these 3 points?



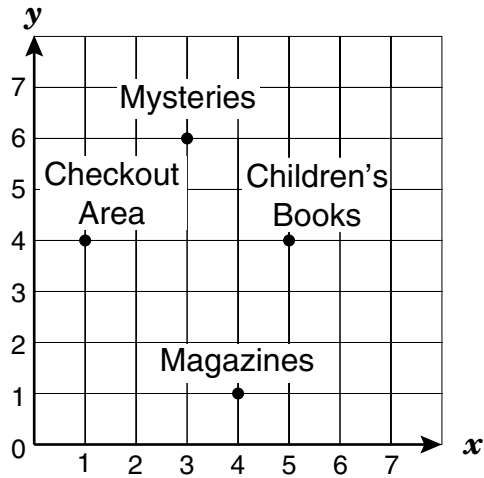
42 An advertisement is shown below.



Which problem matches this advertisement?

- F** The regular prices of 2 kinds of phones are \$20 and \$39. If Ms. Chung buys 1 of each kind of phone, what will be the total cost of the phones?
- G** The regular price of a phone is \$39. The phone is on sale for 20% off the regular price. What is the sale price of the phone?
- H** The regular price of a phone is \$20. The phone is on sale this week for 39% off the regular price. What is the sale price of the phone?
- J** The regular price of a phone is \$39. If Ms. Chung buys 1 phone at the regular price, the second phone will cost 20% less. What will be the total cost of the phones?

- 43 The graph shows some areas of a public library.



Which ordered pair best represents the point on the graph labeled "Magazines"?

- A (1, 4)
- B (3, 6)
- C (4, 1)
- D (5, 4)

- 44 Max is packing books into boxes. Each box can hold 12 books. Which number sentence can be used to find the total number of boxes that he needs in order to pack 84 books?

- F $84 \div 12 = \square$
- G $84 - \square = 12$
- H $84 + 12 = \square$
- J $\square \div 12 = 84$

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

