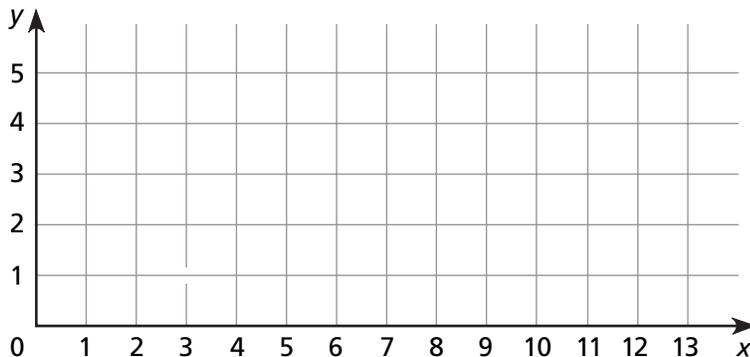


Making Figures on a Coordinate Grid

1 Plot each point, label it, and then connect $A \rightarrow B \rightarrow C \rightarrow D \rightarrow E \rightarrow A$.

Name	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>
Coordinates	(1,2)	(3,4)	(4,3)	(5,1)	(3,1)



2 Complete the table for the rule given.

Name	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>
Coordinates (x,y)	(1,2)	(3,4)	(4,3)	(5,1)	(3,1)
New Ordered Pair: Add 7 to the First Coordinate ($x + 7, y$)					

3 Plot the points whose coordinates are given in the new ordered pairs. Connect the new points: $A \rightarrow B \rightarrow C \rightarrow D \rightarrow E \rightarrow A$.

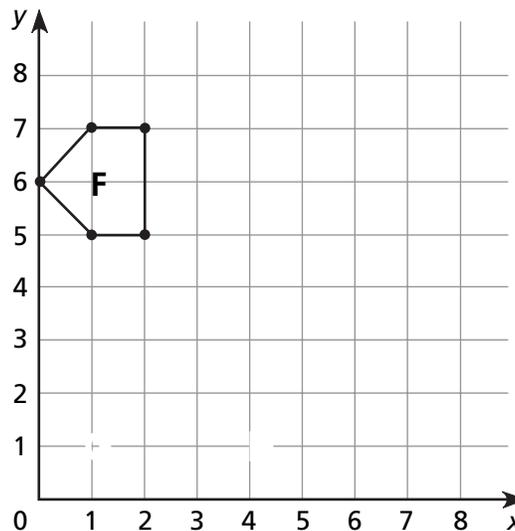


Test Prep

4 Jessica added $\frac{3}{4}$ cup of pineapple, $\frac{2}{3}$ cup of chopped almonds, and $\frac{3}{5}$ cup of dried cranberries to a salad. Did she add more pineapple or dried cranberries? Explain how you know.

Translating Figures on a Grid

- 1 In the first row of the table below, record the coordinates of each vertex of Figure F.
- 2 Slide Figure F five spaces down. Draw it, and record the new coordinates and the rule in the table. Label the new image Figure G.
- 3 Slide Figure G three spaces to the right. Draw it and record the new coordinates and the rule in the table. Label the new image Figure H.

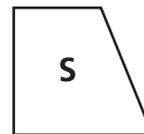
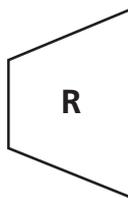
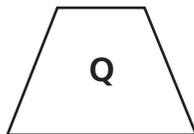
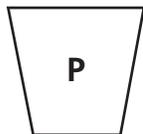


						Rule
F	(1,7)					(x,y)
G	(1,2)					
H						



Test Prep

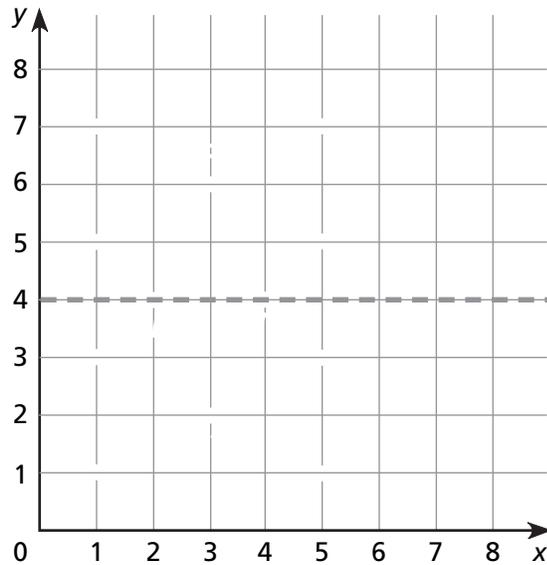
- 4 Which 2 figures look congruent? Explain how you could check to make sure they are congruent.



Reflecting Figures on a Grid

- The vertices of a figure are given in the table below. Plot and label each vertex.
- Use a straightedge to connect $A \rightarrow B \rightarrow C \rightarrow D \rightarrow E \rightarrow F \rightarrow G \rightarrow A$.
- Reflect the figure over the dotted, horizontal line. Plot each new vertex, draw the figure, and write its coordinates in the table.

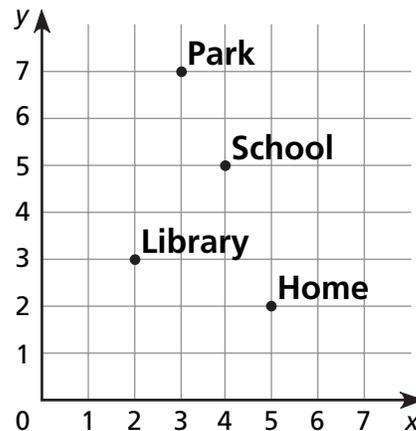
Vertices	Original Figure	New Figure
A	(1,3)	
B	(2,4)	
C	(4,4)	
D	(5,3)	
E	(5,1)	
F	(3,2)	
G	(1,1)	



Test Prep

Aaron made this map showing some locations in his neighborhood.

- Which ordered pair represents the location of the school?
 - A. (2,3) C. (4,5)
 - B. (5,2) D. (5,4)
- What is located at (2,3)?
 - A. Library C. School
 - B. Park D. Home

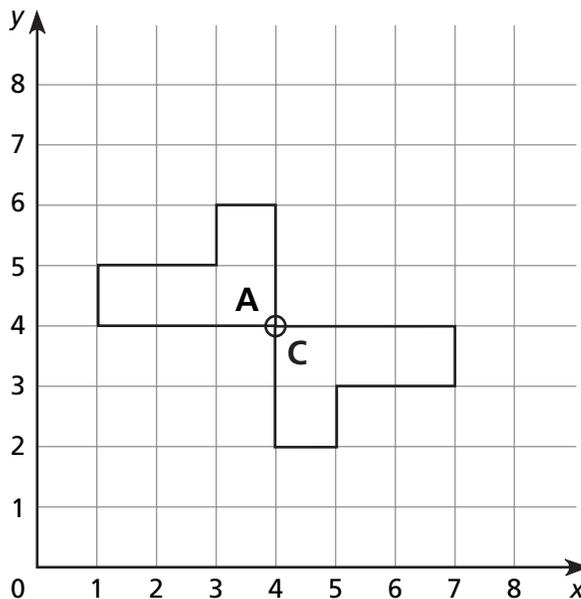


Rotating Figures on a Grid

Figures B, C, and D are rotations of Figure A around (4,4).

- 1 Complete the table of coordinates for Figures C and D.

A	B	C	D
(4,6)	(2,4)		
(3,6)	(2,3)		
(3,5)	(3,3)		
(1,5)	(3,1)		(5,7)
(1,4)	(4,1)		(4,7)
(4,4)	(4,4)		(4,4)

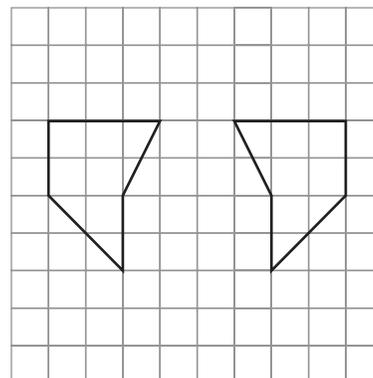


- 2 Draw and label Figures B and D on the grid.



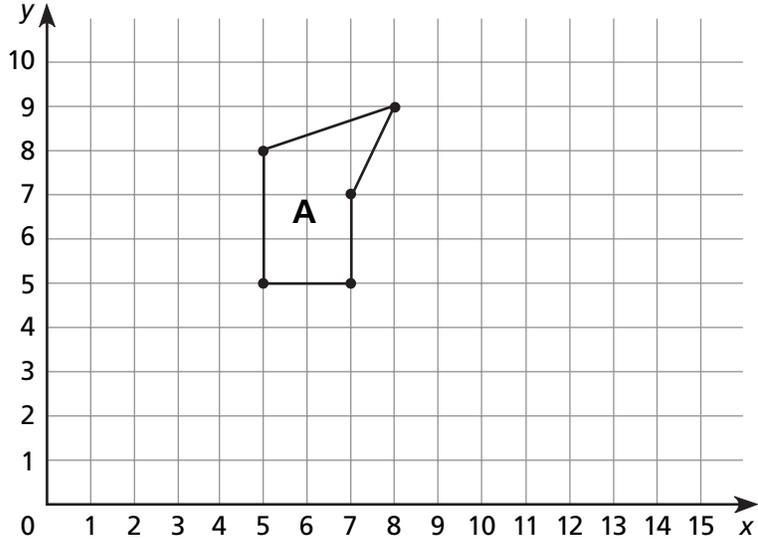
Test Prep

- 3 Does the diagram show a translation, a reflection, or a rotation? If it is a rotation, show the point around which the figure is rotated. If it is a reflection, show the line over which it is reflected. If it is a translation, give directions to tell how much to add to or subtract from each coordinate.
- _____



More About Transformations

- 1 List the coordinates of Figure A's vertices in the table.
- 2 Draw any reflection of Figure A and label it B. List the coordinates of its vertices.
- 3 Draw a translation of Figure A and label it C. Record its vertices.
- 4 Rotate Figure A and label the result D. Record D's vertices.



A	B	C	D

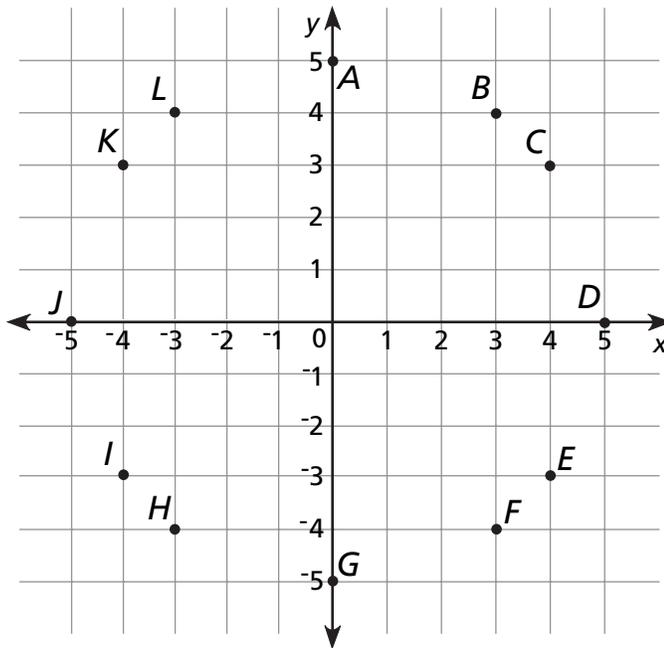


Test Prep

- 5 Which group shows all the numbers that are common factors of 24 and 30?
 - A. 1, 2, 3, 6
 - B. 1, 2, 3, 5, 6
 - C. 1, 2, 3, 4, 6, 8, 12, 24
 - D. 1, 2, 3, 5, 6, 10, 15, 30
- 6 Which is the greatest common factor of 24 and 30?
 - A. 3
 - B. 6
 - C. 24
 - D. 30

Graphing with Negative Numbers

For each coordinate pair, write the letter that labels the point.



- | | | | |
|------------------|-----------------|------------------|-----------------|
| 1 (4,3) <u>C</u> | 2 (3,-4) _____ | 3 (-4,-3) _____ | 4 (-3,4) _____ |
| 5 (5,0) _____ | 6 (0,-5) _____ | 7 (-5,0) _____ | 8 (0,5) _____ |
| 9 (3,4) _____ | 10 (4,-3) _____ | 11 (-3,-4) _____ | 12 (-4,3) _____ |



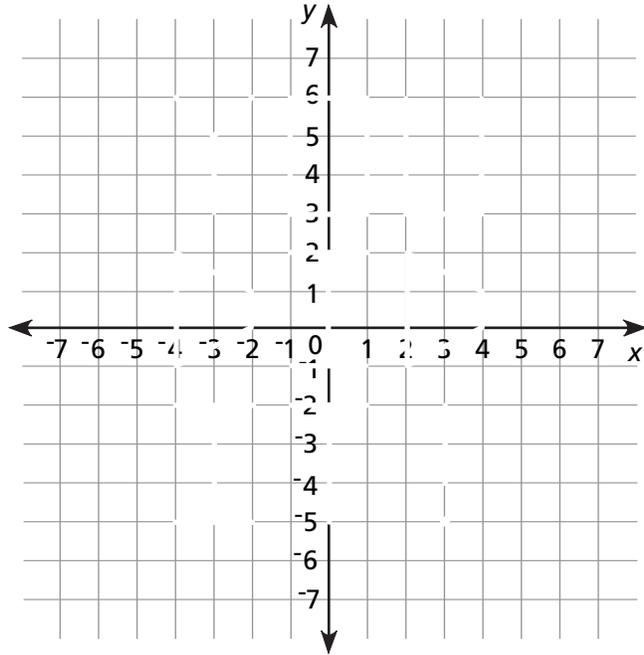
Test Prep

- 13 Rebecca had only a $\frac{1}{4}$ -measuring cup to measure flour for a muffin recipe. She filled the measuring cup six times. How much flour did she measure?
- A. $1\frac{1}{4}$ cups C. $1\frac{3}{4}$ cups
 B. $1\frac{1}{2}$ cups D. $2\frac{1}{2}$ cups
- 14 Jake ordered a pizza for lunch and ate $\frac{3}{8}$ of the pizza. He took the rest of the pizza home. What part of the pizza did he take home?
- A. $\frac{3}{8}$ C. $\frac{5}{8}$
 B. $\frac{1}{2}$ D. $\frac{3}{4}$

Moving on a Coordinate Grid

Draw the following segments.

- 1 $(-4,6)$ to $(-3,5)$
- 2 $(-4,2)$ to $(-2,1)$
- 3 $(-4,-2)$ to $(-2,-2)$
- 4 $(-4,-5)$ to $(-2,-5)$
- 5 $(4,6)$ to $(4,3)$
- 6 $(4,1)$ to $(4,0)$
- 7 $(3,-2)$ to $(3,-4)$
- 8 $(2,6)$ to $(2,3)$
- 9 $(2,2)$ to $(2,-1)$
- 10 $(-1,6)$ to $(1,6)$
- 11 $(-1,2)$ to $(1,2)$
- 12 $(-1,-2)$ to $(1,-2)$
- 13 $(-2,0)$ to $(-4,-1)$
- 14 $(0,-1)$ to $(0,2)$
- 15 $(-1,6)$ to $(-1,3)$
- 16 $(-4,2)$ to $(-4,-1)$
- 17 $(-3,5)$ to $(-2,6)$

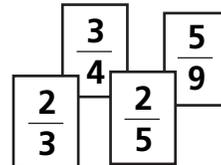


- 18 $(-1,-1)$ to $(1,-1)$
- 19 $(2,2)$ to $(4,1)$
- 20 $(-1,3)$ to $(1,3)$
- 21 $(0,-2)$ to $(0,-5)$
- 22 $(-3,3)$ to $(-3,5)$
- 23 $(4,0)$ to $(2,-1)$
- 24 $(-3,-2)$ to $(-3,-5)$
- 25 $(2,3)$ to $(4,3)$
- 26 $(-2,0)$ to $(-2,1)$
- 27 $(1,6)$ to $(1,3)$
- 28 Draw a big dot at $(3,-5)$



Test Prep

29 Which fraction is closest to $\frac{1}{2}$? Explain how you decided.

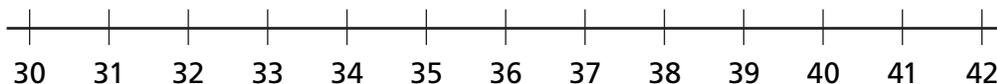


Graphing Data

A group of students wondered **ABOUT** how many raisins are in a small box. They counted the number of raisins in each of 17 boxes. Here are the numbers they found:

37, 33, 35, 36, 38, 34, 35, 38, 35, 37, 35, 33, 35, 35, 36, 37, 40.

- 1 Make a line plot for the data.



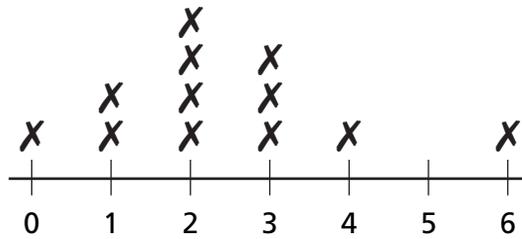
- 2 What is the greatest (maximum) number of raisins found? _____
- 3 What is the least (minimum) number of raisins found? _____
- 4 What is the difference (range) between the greatest number of raisins and the least number of raisins in a box? _____
- 5 What is the number of raisins that was found the most often (the mode)? _____



Test Prep

- 6 Summer camp runs for ten weeks. The campers are served 3 meals a day. How many meals are served in the ten weeks?
- A. 30 meals C. 210 meals
B. 150 meals D. 250 meals
- 7 Each week at summer camp costs \$79 per person. If 27 girls and 23 boys attend the camp, what is the total cost?
- A. \$1,817 C. \$3,590
B. \$2,133 D. \$3,950

What Is Typical?



Use the line plot to decide if the statements are *true* or *false*.

- 1 The title might be "Ages of Fifth Grade Boys' Mothers." _____
- 2 The range is 6. _____
- 3 Both the mode and median are 2. _____
- 4 The title could be "Number of Servings of Fruit and Vegetables in a Day." _____



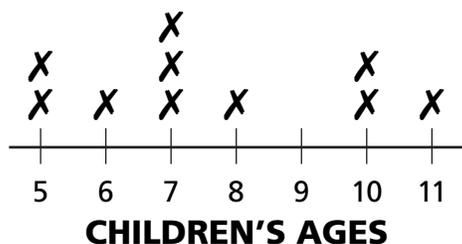
Test Prep

- 5 Derek drew a triangle on a grid. The vertices of the triangle are (1,2), (3,2), and (2,-1). If he translates the triangle 2 spaces to the left and 3 spaces down, what will the coordinates of the new triangle be? Explain how you know.

Another Way of Describing What's Typical

Answer as many questions as you can. If the graph or table does not provide a way to figure out the answer, write "Cannot tell."

- 1 Morgan made a graph to show the ages of children in her neighborhood that were in kindergarten through fifth grade.



• How many children does the graph represent? _____

• What is the median age? _____

2

TOP 9 POPULATIONS OF U.S. CITIES IN 2003

Rank & City	2003
1 New York, NY	8,085,742
2 Los Angeles, CA	3,819,915
3 Chicago, IL	2,869,121
4 Houston, TX	2,009,690
5 Philadelphia, PA	1,479,339
6 Phoenix, AZ	1,388,416
7 San Diego, CA	1,266,753
8 San Antonio, TX	1,214,725
9 Dallas, TX	1,208,318

Source: *The World Almanac for Kids*, 2006, World Almanac Books

• How many people live in the U.S.? _____

• What is the median population of the 9 most populous U.S. cities? _____



Test Prep

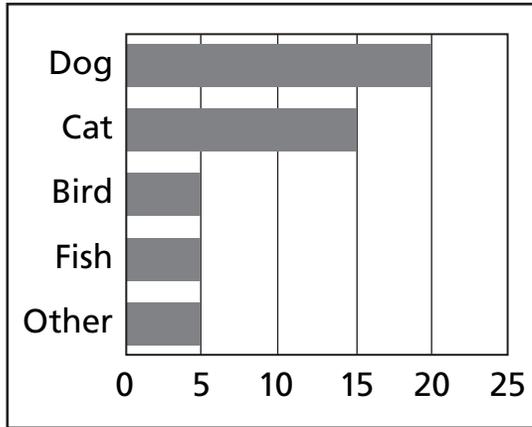
- 3 Which statement is NOT true for this data set?

10, 12, 14, 8, 14

- A. The mode is greater than the minimum.
- B. The median is greater than the mode.
- C. The mode is the same as the maximum.
- D. The range is 6.

Reading Graphs and Tables

Bob took a survey to find out which pets some first graders preferred.

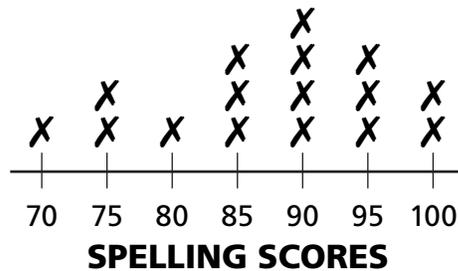


- 1 Which choice is the mode? _____
- 2 How many 1st graders were surveyed? _____
- 3 How many more people chose cats than birds? _____



Test Prep

The line plot shows some students' spelling scores.



- 4 How many students had a score of 80 or better?
 A. 3 students B. 4 students C. 12 students D. 13 students
- 5 Which score did 4 students receive?
 A. 85 B. 90 C. 95 D. 100