

Additional Practice 14-3

Solve Problems Using Ordered Pairs

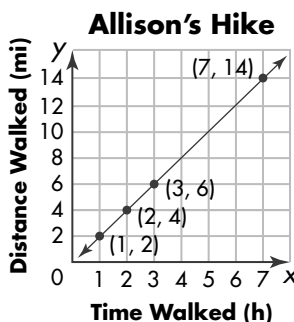
Another Look!

Allison can hike 2 miles in an hour. At that speed, how far would she walk in 7 hours?

DATA	Time (h)	1	2	3
	Distance (mi)	2	4	6

Plot the ordered pairs from the table. Draw a line to show the pattern. Then extend the line to where the x -coordinate is 7. Read the y -coordinate when the x -coordinate is 7. The y -coordinate is 14.

So, Allison can hike 14 miles in 7 hours.

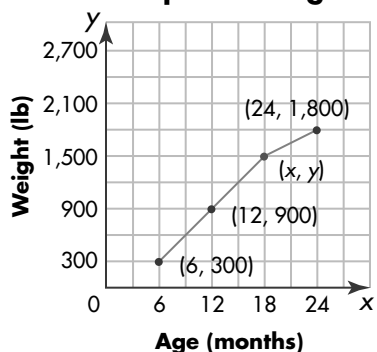


Let x be the number of hours Allison walks and let y be the number of miles she walks.



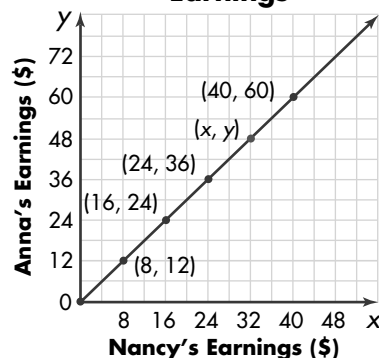
In **1** and **2**, find the missing coordinates and tell what the point represents.

1. Elephant Weight



(18, 1,500); When the elephant is 18 months old, it weighs 1,500 pounds.

2. Earnings



(32, 48); When Nancy had earned \$32, Anna had earned \$48.

- 3.** Write the coordinates of another point on the line in Exercise 2. Then plot and label the point on the graph.

Sample point: (48, 72);
Check students' graphs.

- 4.** What does the ordered pair for the point you found in Exercise 3 represent?

Sample answer: When Nancy had earned \$48, Anna had earned \$72.



In 5–7, use the graph at the right.

5. Jamie is making a graph to show her total earnings, y , after babysitting for x hours. Graph Jamie's first four points below on the grid at the right. Use a ruler to draw a line connecting the points.

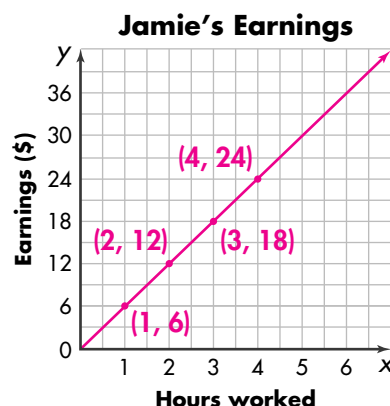
(1, 6) (2, 12) (3, 18) (4, 24)

6. Describe what one of the points represents.

Sample answer: Jamie earns \$24 after working 4 hours.

7. **Higher Order Thinking** Write a rule to describe the relationship shown in the graph. Then name two other points that would be on the graph if the line were extended.

Sample answer: Jamie earns \$6 per hour babysitting; (5, 30) and (6, 36)



8. **A-Z Vocabulary** Complete the sentence using one of the terms below.

x-axis y-axis origin

On a coordinate grid, the x-axis is horizontal.

9. **Be Precise** The area of a rectangle is 105 square centimeters. The width of the rectangle is 7 centimeters. What is the perimeter of the rectangle?

44 centimeters

Assessment Practice

10. What does the point (3, 10) represent on the graph at the right?

- (A) After 3 months, the total rainfall was 7 inches.
 (B) After 3 months, the total rainfall was 10 inches.
 (C) After 10 months, the total rainfall was 3 inches.
 (D) After 10 months, the total rainfall was 7 inches.

