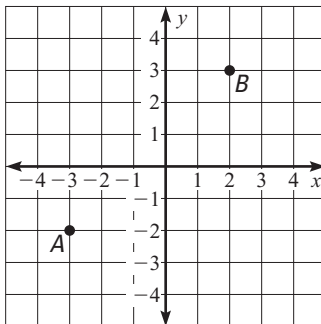


CHAPTER
4**Chapter Test**

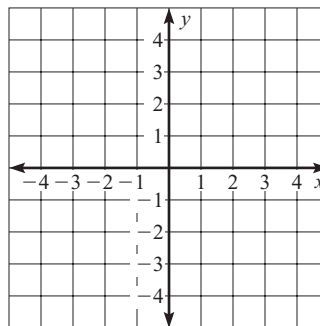
For use after Chapter 4

For Exercises 1–2, identify the coordinates of the point.

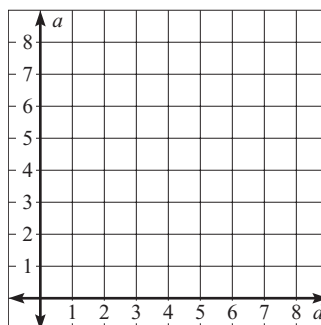
- point A
- point B

**For Exercises 3–6, plot points P , Q , R , and S .**

- $P(-1, 4)$
- $Q(4, 1)$
- $R(1, -4)$
- $S(-4, -1)$



- The altitude a of a person hiking up a certain mountain trail can be described by $a = \frac{1}{2}d + 1$, where d is the distance in miles the person has hiked from the beginning of the trail.
 - On the grid below, graph a person's altitude after hiking these distances: 1 mile, 2 miles, 3 miles, 4 miles.



- Is the graph a function? Explain.

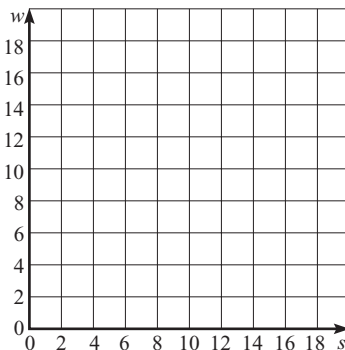
Answers

- _____
- _____
- See grid.
- See grid.
- See grid.
- See grid.
- See grid.
- See grid.
 - _____
 - _____
 - _____

CHAPTER
4**Chapter Test** *continued*
For use after Chapter 4

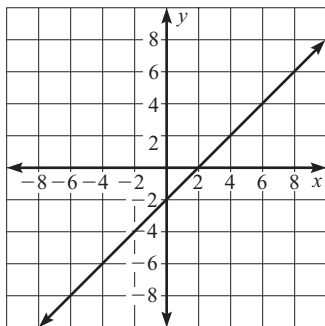
8. A factory makes staplers and ships them to office supply stores. The weight of a box of staplers is $w = \frac{3}{4}s + \frac{1}{2}$, where w is the weight in pounds, and s is the number of staplers.

- a. Graph the function on the grid.
- b. Shipping costs are \$1.30 per pound. How much does the factory pay to ship a box of 16 staplers?



For Exercises 9–11, identify the graph of each equation as horizontal, vertical, or neither.

9. $x = 18$
10. $y = 29x$
11. $y = 45$
12. What is the x -intercept of $-3x + 5y = -2$?
- A. $\frac{2}{3}$ B. $-\frac{5}{3}$ C. $-\frac{2}{5}$ D. $\frac{3}{2}$
13. What is the y -intercept of the graph?



- A. -2 B. -1 C. 1 D. 2

Answers

8a. See grid.

8b. _____

9. _____

10. _____

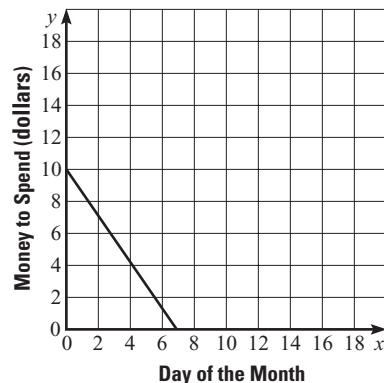
11. _____

12. _____

13. _____

Chapter Test *continued*
For use after Chapter 4

14. The graph shows the allowance money which Mario has remaining for each day of the month.



- a. What does the x -intercept represent?
 b. What does the y -intercept represent?
 c. To the nearest cent, how much allowance money does Mario spend per day?
15. What is the slope of the line that passes through $(5, -2)$ and $(-8, 0)$?
16. Line a is parallel to line b . The equation of line a is $y = \frac{1}{3}x - 6$. Which could be the equation of line b ?
- A. $y = 3x - 18$ B. $y = \frac{2}{3}x - 6$
 C. $y = \frac{1}{3}x + 3$ D. $y = 6x - \frac{1}{3}$
17. What is the slope of a line with the equation $3x + 8y = 5$?
- A. -3 B. $\frac{8}{3}$ C. 8 D. $-\frac{3}{8}$

Answers

14a. _____

14b. _____

14c. _____

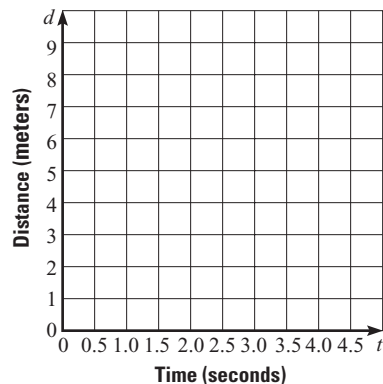
15. _____

16. _____

17. _____

CHAPTER
4**Chapter Test** *continued*
For use after Chapter 4

18. Jared and Kayla want to see who has the faster hamster. The distance d in meters from the starting line which Jared's hamster runs after t seconds is given by $d = 2.5t$. The distance which Kayla's hamster runs is $d = 2.5t + 2$.
- a. Graph the models on the grid below.



- b. If the hamsters run the race for a distance of 10 meters, then how many seconds does each hamster take to finish the race?
- c. Did both hamsters begin the race on the starting line? Explain.
19. A catering company sells lunches for the prices listed in the table below.

Number of Lunches (n)	5	10	15	20
Price (p)	\$27.50	\$55	\$82.50	\$110

- a. Write an equation to model the relationship between n and p .
- b. Does p vary directly with n ? Explain.
20. What is the value of $f(x) = \frac{3}{2}x - 5$ when $x = -4$?
21. The graph of $g(x)$ is a vertical translation of 9 units down from $f(x) = x$. Which could be $g(x)$?
- A. $g(x) = x - 9$ B. $g(x) = 9x$
- C. $g(x) = 9 - x$ D. $g(x) = -9x$

Answers

18a. See grid.

18b. _____

18c. _____

19a. _____

19b. _____

20. _____

21. _____