

# Answers

## Mid-Chapter Quiz

1. 2; the grade increases by an additional 2 points for each additional hour spent studying.

✓ 2. 25; the car travels at a rate of 25 m/s.

3. 1

4. 1

5. undefined

6. 0

7. yes; 3

8. yes;  $\frac{5}{8}$

9. no

10.  $\frac{1}{5}, 3$

11.  $-\frac{3}{4}, 3$

12.  $-\frac{4}{3}, -3$

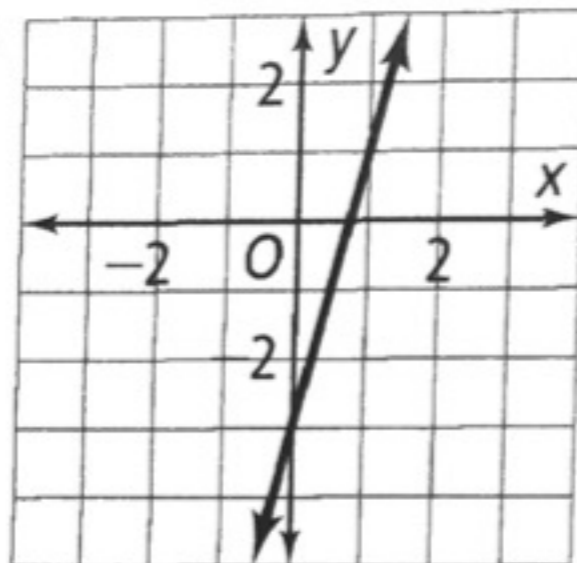
13. \$119 billion per year

14. 140 ft

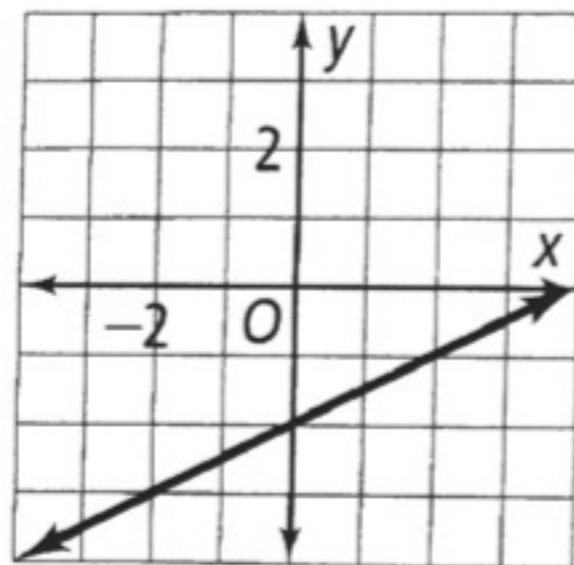
15.  $y = \frac{1}{2}x - 1$

16.  $y = -\frac{3}{2}x$

17.



18.



19.  $y + 2 = -\frac{1}{2}(x - 2)$

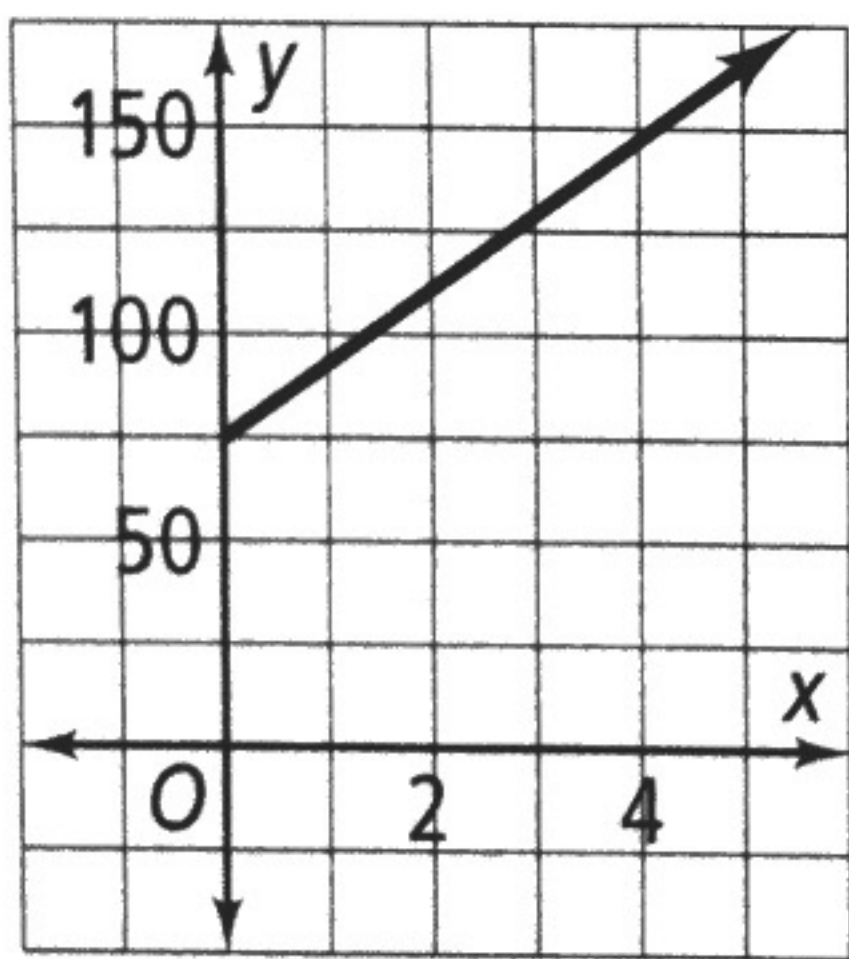
20.  $y = 4(x - 4)$

21–22. Answers may vary. Samples are given.

21.  $y = -x + 2$

22.  $y = 5x$

- 23.** Use two points on the line to find the slope and then use the slope and one of the points to write the equation in point-slope form. Use two points on the line to find the slope and identify the  $y$ -intercept and then write the equation in slope-intercept form.
- 24.** Answers may vary. Sample: Graph the line and find the  $y$ -coordinate of the point where the line intercepts the  $y$ -axis.
- 25.** Yes; the graph of a line with undefined slope is a vertical line.
- 26.**  $y = 18x + 75$



the number of hours worked; earnings