

GUIDED PRACTICE

SEE EXAMPLE 1

p. 334

Graph each line given the slope and y -intercept.

1. slope = $\frac{1}{3}$, y -intercept = -3

2. slope = 0.5 , y -intercept = 3.5

3. slope = 5 , y -intercept = -1

4. slope = -2 , y -intercept = 2

SEE EXAMPLE 2

p. 335

Write the equation that describes each line in slope-intercept form.

5. slope = 8 , y -intercept = 2

6. slope = $\frac{1}{2}$, y -intercept = -6

7. slope = 0 , y -intercept = -3

8. slope = 5 , the point $(2, 7)$ is on the line

SEE EXAMPLE 3

p. 336

Write each equation in slope-intercept form. Then graph the line described by the equation.

9. $y = \frac{2}{5}x - 6$

10. $3x - y = 1$

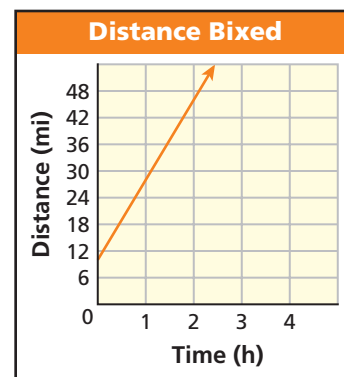
11. $2x + y = 4$

SEE EXAMPLE 4

p. 337

12. Helen is in a bicycle race. She has already biked 10 miles and is now biking at a rate of 18 miles per hour. Her distance as a function of time is shown in the graph.

- Write an equation that represents the distance Helen has biked as a function of time.
- Identify the slope and y -intercept and describe their meanings.
- How far will Helen have biked after 2 hours?



PRACTICE AND PROBLEM SOLVING

Independent Practice

For Exercises	See Example
13–16	1
17–20	2
21–29	3
30	4

Graph each line given the slope and y -intercept.

13. slope = $\frac{1}{4}$, y -intercept = 7

14. slope = -6 , y -intercept = -3

15. slope = 1 , y -intercept = -4

16. slope = $-\frac{4}{5}$, y -intercept = 6

Write the equation that describes each line in slope-intercept form.

17. slope = 5 , y -intercept = -9

18. slope = $-\frac{2}{3}$, y -intercept = 2

19. slope = $-\frac{1}{2}$, $(6, 4)$ is on the line

20. slope = 0 , $(6, -8)$ is on the line

Write each equation in slope-intercept form. Then graph the line described by the equation.

21. $y = -\frac{1}{2}x + 3$

22. $y = \frac{1}{3}x - 5$

23. $y = x + 6$

24. $6x + 3y = 12$

25. $y = \frac{7}{2}$

26. $4x + y = 9$

27. $-\frac{1}{2}x + y = 4$

28. $\frac{2}{3}x + y = 2$

29. $2x + y = 8$