

# Practice 5–2

## Slope–Intercept Form

Find the slope and  $y$ -intercept of each equation.

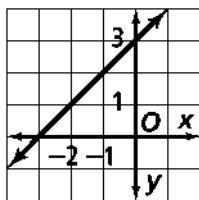
- |                           |                            |                           |                            |
|---------------------------|----------------------------|---------------------------|----------------------------|
| 1. $y = x + 2$            | 2. $y + 3 = -\frac{1}{3}x$ | 3. $y = 2x - 1$           | 4. $y - \frac{3}{5}x = -1$ |
| 5. $y = \frac{1}{2}x - 4$ | 6. $y - 2x = -3$           | 7. $y = \frac{2}{5}x + 3$ | 8. $y + \frac{1}{3}x = -2$ |
| 9. $y = -x - 2$           | 10. $y - 6 = -2x$          | 11. $y = -5x - 2$         | 12. $y + x = 0$            |

Write an equation of a line with the given slope and  $y$ -intercept.

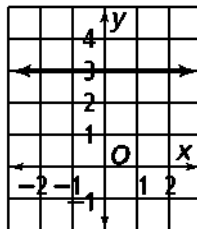
- |                                |                      |                               |
|--------------------------------|----------------------|-------------------------------|
| 13. $m = 4, b = 8$             | 14. $m = -2, b = -6$ | 15. $m = \frac{4}{3}, b = 0$  |
| 16. $m = -\frac{9}{5}, b = -7$ | 17. $m = -6, b = 1$  | 18. $m = \frac{3}{7}, b = -1$ |
| 19. $m = -\frac{1}{5}, b = -3$ | 20. $m = 9, b = 4$   | 21. $m = -8, b = 11$          |

Write the slope–intercept form of the equation for each line.

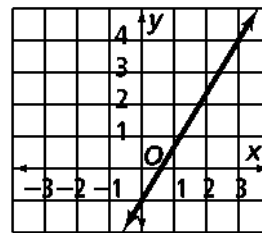
22.



23.



24.



Determine whether the ordered pair lies on the graph of the given equation.

- |                               |                            |                             |
|-------------------------------|----------------------------|-----------------------------|
| 25. $(2, -7); y = -3x - 1$    | 26. $(-8, -2); y = 5x + 2$ | 27. $(0, 5); 3y = -x + 15$  |
| 28. $(-7, -6); -6x + 5y = 12$ | 29. $(1, -5); x - 3y = -8$ | 30. $(2, -2); 2y = 3x - 10$ |

Use the slope and  $y$ -intercept to graph each equation.

- |                             |                            |                        |
|-----------------------------|----------------------------|------------------------|
| 31. $y = \frac{2}{3}x + 3$  | 32. $y = \frac{1}{5}x - 2$ | 33. $y = 4x - 3$       |
| 34. $y = -\frac{1}{2}x - 4$ | 35. $y = -0.5x + 5$        | 36. $\frac{3}{4}x + 7$ |

37. A television production company charges a basic fee of \$4000 and then \$2000 per hour when filming commercial.
- Write an equation in slope–intercept form relating the basic fee and per–hour charge.
  - Graph your equation.
  - Use your graph to find the production costs if 4 hours of filming were needed.