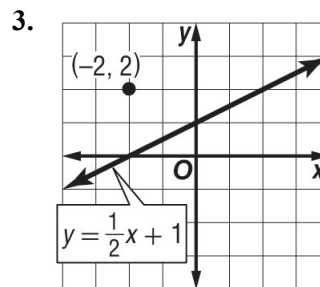
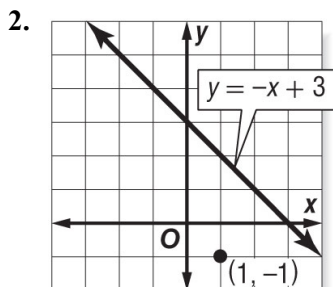
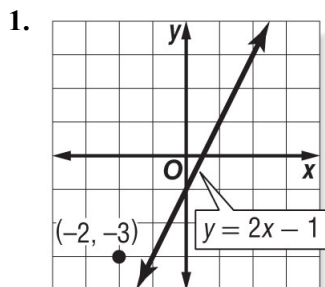


4-4 Skills Practice

Parallel and Perpendicular Lines

Write an equation in slope-intercept form for the line that passes through the given point and is parallel to the graph of the given equation.



4. $(3, 2), y = 3x + 4$

5. $(-1, -2), y = -3x + 5$

6. $(-1, 1), y = x - 4$

Write an equation in slope-intercept form for the line that passes through the given point and is perpendicular to the graph of the given equation.

7. $(1, -3), y = -4x - 1$

8. $(-4, 2), y = x + 3$

9. $(-4, 3), y = \frac{1}{2}x - 6$

10. **RADAR** On a radar screen, a plane located at $A(-2, 4)$ is flying toward $B(4, 3)$. Another plane, located at $C(-3, 1)$, is flying toward $D(3, 0)$. Are the planes' paths perpendicular? Explain.

Determine whether the graphs of the following equations are *parallel* or *perpendicular*. Explain.

11. $y = \frac{2}{3}x + 3, y = \frac{3}{2}x, 2x - 3y = 8$

12. $y = 4x, x + 4y = 12, 4x + y = 1$

Write an equation in slope-intercept form for the line that passes through the given point and is perpendicular to the graph of the given equation.

13. $(-3, -2), y = x + 2$

14. $(4, -1), y = 2x - 4$

15. $(-1, -6), x + 3y = 6$

16. $(-4, 5), y = -4x - 1$

17. $(-2, 3), y = \frac{1}{4}x - 4$

18. $(0, 0), y = \frac{1}{2}x - 1$