

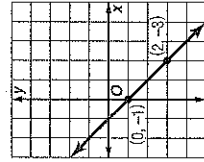
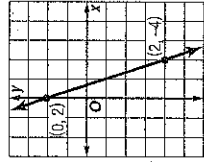
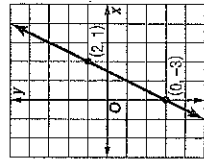
## Skills Practice

### Graphing Equations in Slope-Intercept Form

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

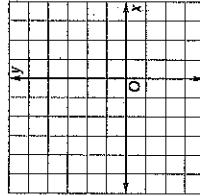
- slope: 5, y-intercept: -3
- slope: -2, y-intercept: 7
- slope: -6, y-intercept: -2
- slope: 7, y-intercept: 1
- slope: 3, y-intercept: 2
- slope: -4, y-intercept: -9
- slope: 1, y-intercept: -12
- slope: 0, y-intercept: 8

Write an equation in slope-intercept form for each graph shown.

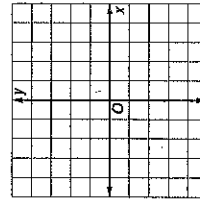


Graph each equation.

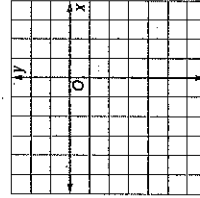
12.  $y = x + 4$



13.  $y = -2x - 1$



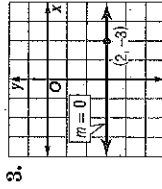
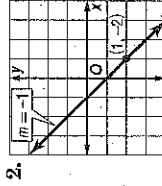
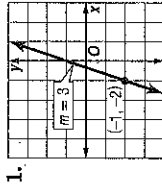
14.  $x + y = -3$



## Skills Practice

### Writing Equations in Point-Slope Form

Write an equation in point-slope form for the line that passes through the given point with the slope provided.



4.  $(3, 1), m = 0$

5.  $(-4, 6), m = 8$

6.  $(1, -3), m = -4$

7.  $(4, -6), m = 1$

8.  $(3, 8), m = \frac{4}{3}$

9.  $(-5, -1), m = -\frac{5}{4}$

Write each equation in standard form.

10.  $y + 1 = x + 2$

11.  $y + 9 = -3(x - 2)$

12.  $y - 7 = 4(x + 4)$

13.  $y - 4 = -(x - 1)$

14.  $y - 6 = 4(x + 3)$

15.  $y + 5 = -5(x - 3)$

16.  $y - 10 = -2(x - 3)$

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

18.  $y + 11 = \frac{1}{3}(x + 3)$

Write each equation in slope-intercept form.

19.  $y - 4 = 3(x - 2)$

20.  $y + 2 = -(x + 4)$

21.  $y - 6 = -2(x + 2)$

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

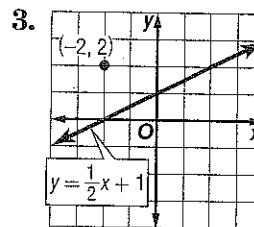
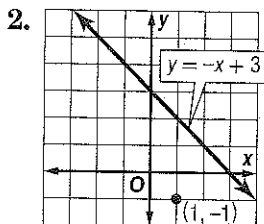
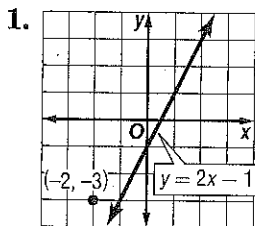
23.  $y - 3 = 6(x - 1)$

24.  $y - 8 = 3(x + 5)$

## 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 each equation.



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

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

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

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