

**Section 4.2**  
**Exercises**

**Write an equation of the line using the given information.**

1. horizontal line; passes through (2, 6)
2. vertical line; passes through (-3, 1)
3. slope is 2; y intercept is 6
4. slope is -3; y intercept is -1
5. slope is  $\frac{1}{5}$ ; y intercept is 2
6. slope is  $-\frac{2}{3}$ ; y intercept is 9
7. slope is 3; passes through (2, 7)
8. slope is -2; passes through (3, -1)
9. slope is  $\frac{3}{4}$ ; passes through (-8, 2)
10. slope is  $-\frac{1}{3}$ ; passes through (6, -3)
11. passes through the points (0, 4) and (3, 1)
12. passes through the points (2, -3) and (4, 5)
13. passes through the points (3, 5) and (-6, 2)
14. passes through the points (-1, 4) and (2, -3)
15. passes through the points (2, 3) and (5, 3)
16. passes through the points (-1, 9) and (-1, -3)

**Write each equation in slope intercept form. Then state the slope of any line that is parallel to the line and the slope of any line that is perpendicular to the line.**

17.  $2x - 3y = 9$
18.  $5x + 4y = 7$
19.  $x + 3y = 6$
20.  $x - 2y = 4$

**Write an equation of the line using the given information.**

21. parallel to  $y = 3x + 4$  and passes through (2, 5)
22. parallel to  $y = -5x + 4$  and passes through (3, -10)
23. parallel to the  $x$  axis and passes through (2, 7)
24. parallel to the  $y$  axis and passes through (-3, -2)
25. perpendicular to  $y = \frac{1}{2}x + 3$  and passes through (1, -5)
26. perpendicular to  $y = -4x - 2$  and passes through (8, 0)
27. perpendicular to the  $x$  axis and passes through (3, 7)
28. perpendicular to the  $y$  axis and passes through (-2, 4)