3.6 Writing Equations of Lines

Write the slope-intercept form of the equation of each line given the slope and y-intercept.

1) Slope = $-\frac{1}{5}$, y-intercept = –2

2) Slope = $-\frac{8}{3}$, y-intercept = 4

3) Slope = –5, y-intercept = –5

4) Slope = $-\frac{3}{5}$, y-intercept = 1

Write the slope-intercept form of the equation of the line through the given point with the given slope.

5) through: $(-2, 0)$, slope = 1

6) through: $(5, -4)$, slope = $-\frac{1}{5}$

7) through: $(-1, 4)$, slope = –7

8) through: $(1, 0)$, slope = 3

Write the slope-intercept form of the equation of the line described.

9) through: $(2, 3)$, parallel to $y = \frac{3}{2}x - 5$

10) through: $(-1, 5)$, parallel to $y = -6x - 5$

11) through: $(4, 4)$, parallel to $x = 0$

12) through: $(5, -4)$, parallel to $y = -\frac{3}{5}x + 3$

13) through: $(4, 1)$, perp. to $y = -\frac{5}{2}x - 5$

14) through: $(-1, 4)$, perp. to $y = \frac{1}{8}x + 4$

15) through: $(5, -4)$, perp. to $y = x - 3$

16) through: $(4, 3)$, perp. to $y = -\frac{1}{7}x - 2$