

Writing Equations of Lines (HW)

Date _____ Period _____

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

1) through: $(-3, 5)$, slope = $-\frac{4}{3}$

$$y = -\frac{4}{3}x + 1$$

2) through: $(-1, -3)$, slope = 1

$$y = x - 2$$

3) through: $(-1, -3)$, slope = 2

$$y = 2x - 1$$

4) through: $(-2, -1)$, slope = undefined

$$x = -2$$

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

5) through: $(0, 5)$ and $(-4, -4)$

$$y = \frac{9}{4}x + 5$$

6) through: $(0, 3)$ and $(-4, 2)$

$$y = \frac{1}{4}x + 3$$

7) through: $(-2, 4)$ and $(0, -2)$

$$y = -3x - 2$$

8) through: $(2, -4)$ and $(3, -3)$

$$y = x - 6$$

9) through: $(0, -3)$ and $(3, -4)$

$$y = -\frac{1}{3}x - 3$$

10) through: $(1, 0)$ and $(0, 5)$

$$y = -5x + 5$$

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

11) through: $(-4, 5)$, parallel to $y = -\frac{1}{2}x - 1$

$$y = -\frac{1}{2}x + 3$$

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

$$y = -\frac{5}{4}x$$

13) through: $(-1, -3)$, parallel to $y = 3x + 2$

$$y = 3x$$

14) through: $(-1, 2)$, parallel to $y = -7x + 1$

$$y = -7x - 5$$

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

$$y = -5x$$

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

$$y = 3x + 5$$

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

$$y = 4x - 11$$

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

$$y = -\frac{4}{5}x + 3$$

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

$$y = 2x - 3$$

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

$$y = \frac{3}{4}x - 2$$