

Equations - Parallel and Perpendicular Lines

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

1) through: $(3, 0)$, parallel to $y = \frac{2}{3}x + 1$

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

3) through: $(-1, -1)$, parallel to $y = -2x - 4$

4) through: $(-4, -5)$, parallel to $y = -2x - 5$

5) through: $(-4, 3)$, parallel to $y = \frac{1}{2}x - 3$

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

7) through: $(-5, 1)$, parallel to $y = -\frac{2}{3}x + 2$

8) through: $(-5, 4)$, parallel to $y = -\frac{6}{7}x + 3$

9) through: $(5, -1)$, perp. to $y = \frac{1}{3}x + 1$

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

11) through: $(-2, 2)$, perp. to $y = \frac{2}{3}x - 2$

12) through: $(1, 3)$, perp. to $y = x + 5$

13) through: $(-3, -1)$, perp. to $y = -\frac{1}{2}x + 5$

14) through: $(-5, -4)$, perp. to $y = -\frac{5}{9}x + 4$

15) through: $(3, 3)$, perp. to $y = -\frac{3}{8}x + 4$

16) through: $(5, 4)$, perp. to $y = -8x$

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

1) through: $(3, 0)$, parallel to $y = \frac{2}{3}x + 1$

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

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

3) through: $(-1, -1)$, parallel to $y = -2x - 4$

$$y = -2x - 3$$

4) through: $(-4, -5)$, parallel to $y = -2x - 5$

$$y = -2x - 13$$

5) through: $(-4, 3)$, parallel to $y = \frac{1}{2}x - 3$

$$y = \frac{1}{2}x + 5$$

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

7) through: $(-5, 1)$, parallel to $y = -\frac{2}{3}x + 2$

$$y = -\frac{2}{3}x - \frac{7}{3}$$

8) through: $(-5, 4)$, parallel to $y = -\frac{6}{7}x + 3$ $y = -\frac{6}{7}x - \frac{2}{7}$

9) through: $(5, -1)$, perp. to $y = \frac{1}{3}x + 1$

$$y = -3x + 14$$

10) through: $(5, -3)$, perp. to $y = x$
 $y = -x + 2$

11) through: $(-2, 2)$, perp. to $y = \frac{2}{3}x - 2$

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

12) through: $(1, 3)$, perp. to $y = x + 5$
 $y = -x + 4$

13) through: $(-3, -1)$, perp. to $y = -\frac{1}{2}x + 5$

$$y = 2x + 5$$

14) through: $(-5, -4)$, perp. to $y = -\frac{5}{9}x + 4$ $y = \frac{9}{5}x + 5$

15) through: $(3, 3)$, perp. to $y = -\frac{3}{8}x + 4$

$$y = \frac{8}{3}x - 5$$

16) through: $(5, 4)$, perp. to $y = -8x$ $y = \frac{1}{8}x + \frac{27}{8}$