

Parallel & Perpendicular Lines - PRACTICE

Write the **SLOPE-INTERCEPT** form of the equation of the line described.

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

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

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

$$y = -4x - 18$$

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

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

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

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

Write the **STANDARD** form of the equation of the line described.

5) through: (5, -4), parallel to $x + 2y = 7$

$$x + 2y = -3$$

6) through: (1, -5), parallel to $2x + y = 12$

$$2x + y = -3$$

7) through: (1, -5), parallel to $3x - y = 2$

$$3x - y = 8$$

8) through: (-3, 0), parallel to $5x - 3y = 8$

$$5x - 3y = -15$$

Write the **POINT-SLOPE** form of the equation of the line described.

9) through: (2, -1), parallel to $y - 6 = -\frac{1}{2}(x - 4)$

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

10) through: (-3, 0), parallel to $y - 1 = -(x + 4)$

$$y = -(x + 3)$$

11) through: (5, 1), parallel to $y - 7 = \frac{3}{5}(x - 10)$

$$y - 1 = \frac{3}{5}(x - 5)$$

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

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

Write the SLOPE-INTERCEPT form of the equation of the line described.

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

$$y = -x - 3$$

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

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

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

$$y = x - 5$$

16) through: $(-2, -4)$, perp. to $y = -\frac{2}{5}x + 3$

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

Write the STANDARD form of the equation of the line described.

17) through: $(4, -1)$, perp. to $4x - 5y = 8$

$$5x + 4y = 16$$

18) through: $(4, -1)$, perp. to $4x + y = 9$

$$x - 4y = 8$$

19) through: $(-2, 5)$, perp. to $2x - 7y = 5$

$$7x + 2y = -4$$

20) through: $(2, -1)$, perp. to $3x + y = 11$

$$x - 3y = 5$$

Write the POINT-SLOPE form of the equation of the line described.

21) through: $(2, 4)$, perp. to $y - 13 = -\frac{2}{7}(x + 6)$

$$y - 4 = \frac{7}{2}(x - 2)$$

22) through: $(5, -4)$, perp. to $y - 7 = \frac{5}{3}(x - 10)$

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

23) through: $(-3, -2)$, perp. to $y + 8 = -\frac{3}{4}(x - 4)$

$$y + 2 = \frac{4}{3}(x + 3)$$

24) through: $(-5, 5)$, perp. to $y - 13 = x - 2$

$$y - 5 = -(x + 5)$$