

Equation of Parallel or Perpendicular Lines

 **Write an equation of the line that passes through the given point and is parallel to the given line.**

1) $(-2, -4), 4x + 7y = -14$

2) $(-4, 2), y = -x + 3$

3) $(-2, 5), 2y = 4x - 6$

4) $(-10, 0), -y + 3x = 16$

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


6) $(1, 7), -6x + y = -1$

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

8) $(1, 4), -6x + 5y = -10$

9) $(3, -3), y = -\frac{5}{2}x - 1$

10) $(-4, 3), 2x + 3y = -9$

 **Write an equation of the line that passes through the given point and is perpendicular to the given line.**

11) $(-1, -7), 3x + 12y = -6$

12) $(-3, 5), 5x - 6y = 9$

13) $(2, 6), y = -3$

14) $(-2, 3), x = 4$

15) $(1, -5), y = \frac{1}{8}x + 2$

16) $(3, 4), y = -2x - 4$

17) $(-5, 5), y = \frac{5}{9}x - 4$

18) $(4, -1), y = x + 2$

Answers***Equation of parallel or perpendicular lines***

1) $y = -\frac{4}{7}x - \frac{36}{7}$

2) $y = -x - 2$

3) $y = 2x + 9$

4) $y = 3x + 30$

5) $y = -\frac{3}{5}x + 2$

6) $y = 6x + 1$

7) $y = \frac{1}{5}x - \frac{17}{5}$

8) $y = \frac{6}{5}x + \frac{14}{5}$

9) $y = -\frac{5}{2}x + \frac{9}{2}$

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

11) $y = 4x - 3$

12) $y = -\frac{6}{5}x + \frac{7}{5}$

13) $x = 2$

14) $y = 3$

15) $y = -8x + 3$

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

17) $y = -\frac{9}{5}x - 4$

18) $y = -x + 3$