

Practice Worksheet***Parallel and Perpendicular Lines***

Write an equation of the line that is parallel to the graph of each equation and passes through the given point. Use slope-intercept form.

1. $2x + y = 5$; (3, 1)

2. $3x - y = 5$; (-1, -2)

3. $5x - 4y = 1$; (-8, 2)

4. $9x + 3y = 8$; (-1, -4)

5. $y = \frac{4}{3}x + 5$; (12, 3)

6. $y = -\frac{3}{4}x + \frac{1}{4}$; (4, -2)

Write an equation of the line that is perpendicular to the graph of each equation and passes through the given point. Use slope-intercept form.

7. $x - 6y = 2$; (2, 4)

8. $3x + 2y = -7$; (1, 1)

9. $5x + 4y = 8$; (10, 5)

10. $4x + 3y = -6$; (2, 1)

11. $y = \frac{1}{4}x - 4$; (-2, 3)

12. $2x + 10y = 3$; (2, 3)

13. $x = 2y - 1$; (0, 0)

14. $4x + 7y = 6$; (-4, 1)

10-6

Practice Worksheet

Parallel and Perpendicular Lines

Write an equation of the line that is parallel to the graph of each equation and passes through the given point. Use slope-intercept form.

1. $2x + y = 5; (3, 1)$

$$y = -2x + 7$$

2. $3x - y = 5; (-1, -2)$

$$y = 3x + 1$$

3. $5x - 4y = 1; (-8, 2)$

$$y = \frac{5}{4}x + 12$$

4. $9x + 3y = 8; (-1, -4)$

$$y = -3x - 7$$

5. $y = \frac{4}{3}x + 5; (12, 3)$

$$y = \frac{4}{3}x - 13$$

6. $y = -\frac{3}{4}x + \frac{1}{4}; (4, -2)$

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

Write an equation of the line that is perpendicular to the graph of each equation and passes through the given point. Use slope-intercept form.

7. $x - 6y = 2; (2, 4)$

$$y = -\frac{1}{6}x + \frac{1}{3}$$

8. $3x + 2y = -7; (1, 1)$

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

9. $5x + 4y = 8; (10, 5)$

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

10. $4x + 3y = -6; (2, 1)$

$$y = -\frac{4}{3}x - \frac{1}{2}$$

11. $y = \frac{1}{4}x - 4; (-2, 3)$

$$y = -4x - 5$$

12. $2x + 10y = 3; (2, 3)$

$$y = -\frac{1}{5}x - \frac{1}{10}$$

13. $x = 2y - 1; (0, 0)$

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

14. $4x + 7y = 6; (-4, 1)$

$$y = -\frac{4}{7}x + \frac{6}{7}$$