

Chapter 2 Section 5  
The Point-Slope Form of the Equation of a Line  
Problems

Write the point-slope form, slope-intercept form and standard form of the equation of the line satisfying the given conditions.

1) Slope = 8, passing through (-4, 1)

2) Slope = -1, passing through  $\left(-\frac{1}{4}, -4\right)$

3) Passing through (1, 9) and 4, -2)

4) Passing through (-2, 5) and (3, -5)

5) x-intercept = 2, and y-intercept = -1

Find the slope of the line that is

- a) parallel to the line with the given equation and
- b) perpendicular to the line with the given equation

6)  $y = -9x$

7)  $y = \frac{1}{4}x - 5$

8)  $2x + 4y = 8$

9)  $3x - 4y = -7$

Write the equation of the line in slope-intercept form, point-slope form and standard form that satisfies the given conditions.

10) Passing through (-8, -10) and is parallel to the line whose equation is  $y = -4x + 3$

11) Passing through (-4, 2) and is perpendicular to the line whose equation is  $y = \frac{1}{3}x + 7$