

Linear Equations (G)

Point-Slope Form ($y - y_1 = m(x - x_1)$)

Write the equation of each line in point-slope form then solve for y.

1. Slope: $\frac{5}{3}$ Point: (-6,-6)

2. Slope: $-\frac{4}{7}$ Point: (-7,2)

3. Slope: $\frac{10}{7}$ Point: (7,2)

4. Slope: $-\frac{3}{7}$ Point: (7,-7)

5. Slope: -3 Point: (2,3)

6. Slope: $-\frac{2}{3}$ Point: (-9,0)

7. Slope: $-\frac{7}{4}$ Point: (-8,7)

8. Slope: undefined Point: (-1,4)

9. Slope: 2 Point: (-2,4)

10. Slope: -4 Point: (-1,5)

Linear Equations (G) Answers

Point-Slope Form ($y - y_1 = m(x - x_1)$)

Write the equation of each line in point-slope form then solve for y.

1. Slope: $\frac{5}{3}$ Point: (-6,-6)

$$y - (-6) = \frac{5}{3}(x - (-6))$$

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

2. Slope: $-\frac{4}{7}$ Point: (-7,2)

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

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

3. Slope: $\frac{10}{7}$ Point: (7,2)

$$y - 2 = \frac{10}{7}(x - 7)$$

$$y = \frac{10}{7}x - 8$$

4. Slope: $-\frac{3}{7}$ Point: (7,-7)

$$y - (-7) = -\frac{3}{7}(x - 7)$$

$$y = -\frac{3}{7}x - 4$$

5. Slope: -3 Point: (2,3)

$$y - 3 = -3(x - 2)$$

$$y = -3x + 9$$

6. Slope: $-\frac{2}{3}$ Point: (-9,0)

$$y - 0 = -\frac{2}{3}(x - (-9))$$

$$y = -\frac{2}{3}x - 6$$

7. Slope: $-\frac{7}{4}$ Point: (-8,7)

$$y - 7 = -\frac{7}{4}(x - (-8))$$

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

8. Slope: undefined Point: (-1,4)

$$x = -1$$

9. Slope: 2 Point: (-2,4)

$$y - 4 = 2(x - (-2))$$

$$y = 2x + 8$$

10. Slope: -4 Point: (-1,5)

$$y - 5 = -4(x - (-1))$$

$$y = -4x + 1$$