

## Linear Equations (C)

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:  $\frac{13}{3}$     Point: (3,8)

2. Slope: 13    Point: (1,7)

3. Slope: 11    Point: (-1,-9)

4. Slope:  $\frac{9}{7}$     Point: (-7,-2)

5. Slope: 6    Point: (-1,-7)

6. Slope: undefined    Point: (5,-5)

7. Slope:  $\frac{9}{2}$     Point: (2,3)

8. Slope:  $-\frac{5}{3}$     Point: (-3,2)

9. Slope:  $\frac{4}{3}$     Point: (9,6)

10. Slope:  $-\frac{11}{6}$     Point: (-6,5)

## Linear Equations (C) 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:  $\frac{13}{3}$     Point: (3,8)

$$y - 8 = \frac{13}{3}(x - 3)$$

$$y = \frac{13}{3}x - 5$$

2. Slope: 13    Point: (1,7)

$$y - 7 = 13(x - 1)$$

$$y = 13x - 6$$

3. Slope: 11    Point: (-1,-9)

$$y - (-9) = 11(x - (-1))$$

$$y = 11x + 2$$

4. Slope:  $\frac{9}{7}$     Point: (-7,-2)

$$y - (-2) = \frac{9}{7}(x - (-7))$$

$$y = \frac{9}{7}x + 7$$

5. Slope: 6    Point: (-1,-7)

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

$$y = 6x - 1$$

6. Slope: undefined    Point: (5,-5)

$$x = 5$$

7. Slope:  $\frac{9}{2}$     Point: (2,3)

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

$$y = \frac{9}{2}x - 6$$

8. Slope:  $-\frac{5}{3}$     Point: (-3,2)

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

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

9. Slope:  $\frac{4}{3}$     Point: (9,6)

$$y - 6 = \frac{4}{3}(x - 9)$$

$$y = \frac{4}{3}x - 6$$

10. Slope:  $-\frac{11}{6}$     Point: (-6,5)

$$y - 5 = -\frac{11}{6}(x - (-6))$$

$$y = -\frac{11}{6}x - 6$$