

## Linear Equations (D)

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:  $-15$     Point:  $(1,-7)$

2. Slope: undefined    Point:  $(2,-2)$

3. Slope:  $4$     Point:  $(-2,-1)$

4. Slope:  $\frac{7}{5}$     Point:  $(-5,-1)$

5. Slope:  $-\frac{7}{5}$     Point:  $(5,1)$

6. Slope:  $4$     Point:  $(-4,-7)$

7. Slope:  $2$     Point:  $(8,9)$

8. Slope:  $\frac{5}{2}$     Point:  $(2,1)$

9. Slope:  $\frac{1}{2}$     Point:  $(2,4)$

10. Slope:  $-\frac{13}{3}$     Point:  $(3,-5)$

## Linear Equations (D) 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:  $-15$     Point:  $(1,-7)$

$$y - (-7) = -15(x - 1)$$

$$y = -15x + 8$$

2. Slope: undefined    Point:  $(2,-2)$

$$x = 2$$

3. Slope:  $4$     Point:  $(-2,-1)$

$$y - (-1) = 4(x - (-2))$$

$$y = 4x + 7$$

4. Slope:  $\frac{7}{5}$     Point:  $(-5,-1)$

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

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

5. Slope:  $-\frac{7}{5}$     Point:  $(5,1)$

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

$$y = -\frac{7}{5}x + 8$$

6. Slope:  $4$     Point:  $(-4,-7)$

$$y - (-7) = 4(x - (-4))$$

$$y = 4x + 9$$

7. Slope:  $2$     Point:  $(8,9)$

$$y - 9 = 2(x - 8)$$

$$y = 2x - 7$$

8. Slope:  $\frac{5}{2}$     Point:  $(2,1)$

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

$$y = \frac{5}{2}x - 4$$

9. Slope:  $\frac{1}{2}$     Point:  $(2,4)$

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

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

10. Slope:  $-\frac{13}{3}$     Point:  $(3,-5)$

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

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