

Name: _____

Writing Linear Equations: Point-Slope Form

Write the point-slope form of the equation of the line passing through a given point using its slope

① $(8, -1)$, Slope = -3

② $(2, -3)$, Slope = $-\frac{1}{2}$

③ $(3, 2)$, Slope = 0

④ $(2, -2)$, Slope = -2

⑤ $(-8, 1)$, Slope = -6

⑥ $(2, 5)$, Slope = undefined

Write the point-slope form of the equation of the line through the points

⑦ $(4, -4)$ and $(4, 0)$

⑧ $(-5, 3)$ and $(0, 2)$

Write the point-slope form of the equation of the line described

⑨ through $(-3, -3)$, parallel to $y = \frac{7}{3}x + 3$

Name: _____

Writing Linear Equations: Point-Slope Form

Answers

① (8, -1), Slope = -3

$$y + 1 = -3(x - 8)$$

③ (3, 2), Slope = 0

$$y - 2 = 0(x - 3)$$

⑤ (-8, 1), Slope = -6

$$y + 2 = -6(x + 8)$$

⑦ (4, -4) and (4, 0)

Not possible

② (2, -3), Slope = $-\frac{1}{2}$

$$y + 3 = -0.5(x - 2)$$

④ (2, -2), Slope = -2

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

⑥ (2, 5), Slope = undefined

Not possible

⑧ (-5, 3) and (0, 2)

$$y - 3 = -0.2(x + 5)$$

⑨ through (-3, -3), parallel to $y = \frac{7}{3}x + 3$

$$y + 3 = 2.33$$