# Point-Slope Form (Practice Worksheet)

Write an equation in point-slope form of the line that passes through the given point and has the given slope.

**❶** (2, 7); m = -4

**❷** (12, 5); m = -3

**❸** (4, -5); m = 6

**❹** (-6, -2); m = 3
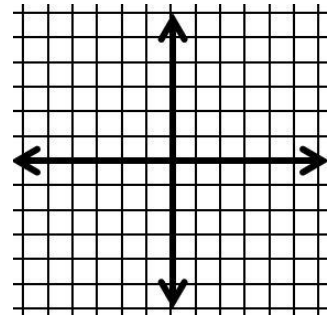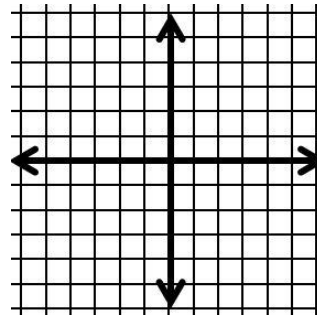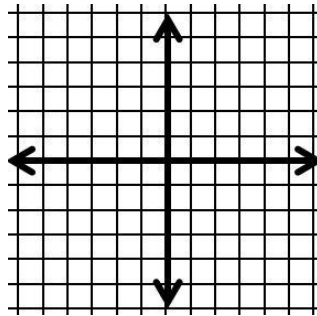
**❺** (7, -6); m = $\frac{1}{2}$

**❻** (-8, 2); m = $-\frac{3}{4}$

Graph the equations below.
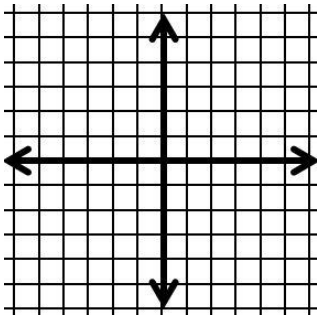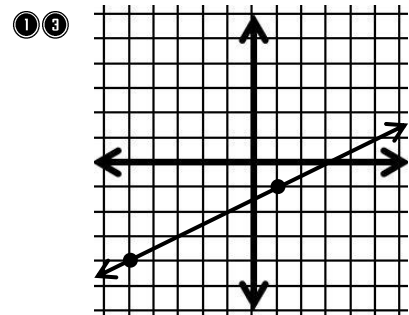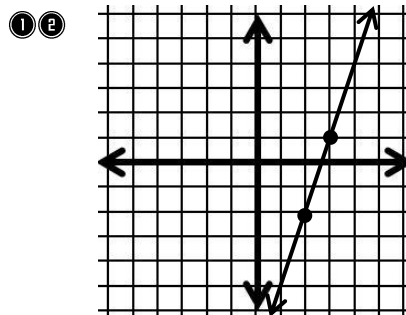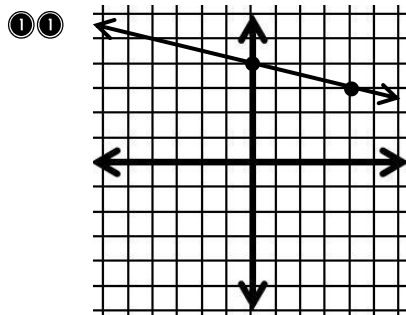
**❼** y + 4 = -3(x + 2)

**❽** y + 3 = -2(x – 2)

**❾** y – 1 = 3(x + 6)

**❿** y + 4 = $\frac{-5}{2}$(x – 3)

Write an equation in point-slope form of the line graphed below. (Use the right hand point)

**⑪** **⑫** **⑬**

Write an equation in point-slope form of the line that passes through the two points given. Use the first point to write the equation.

**⑭** (4,7) and (5, 1)

**⑮** (9, -2) and (-3, 2)

**⑯** (3, -8) and 7(-2)

# Point-Slope Form (Practice Worksheet)   Answer Key!

Write an equation in point-slope form of the line that passes through the given point and has the given slope.

**①** (2, 7); m = -4

$$y - 7 = -4(x - 2)$$

**②** (12, 5); m = -3

$$y - 5 = -3(x - 12)$$

**③** (4, -5); m = 6

$$y + 5 = 6(x - 4)$$

**④** (-6, -2); m = 3

$$y + 2 = 3(x + 6)$$

**⑤** (7, -6); m = $\frac{1}{2}$

$$y + 6 = \frac{1}{2}(x - 7)$$

**⑥** (-8, 2); m = $-\frac{3}{4}$
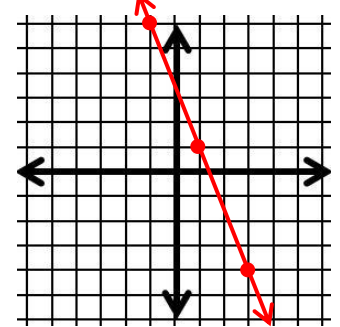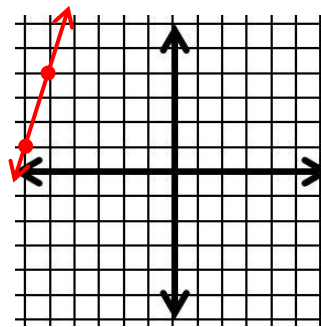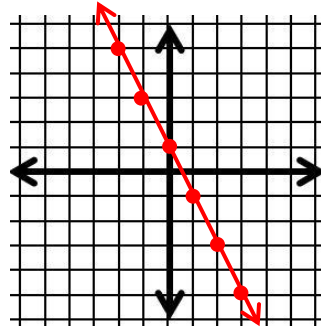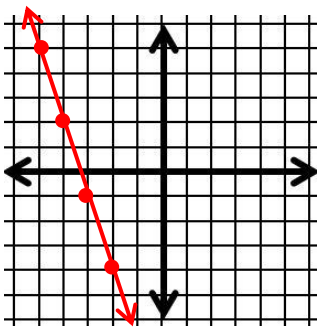
$$y - 2 = -\frac{3}{4}(x + 8)$$

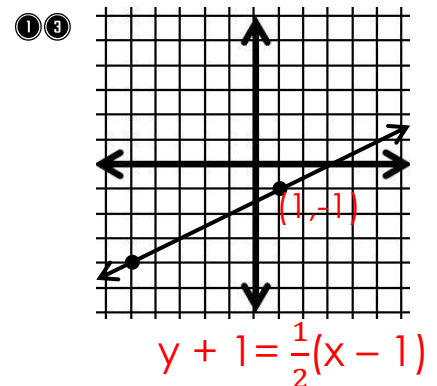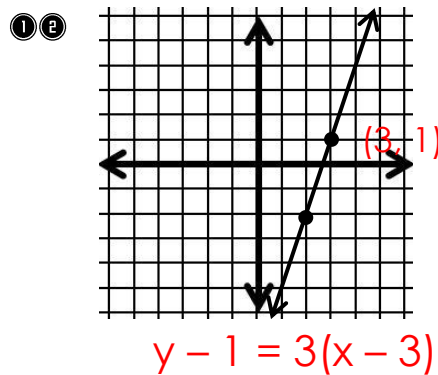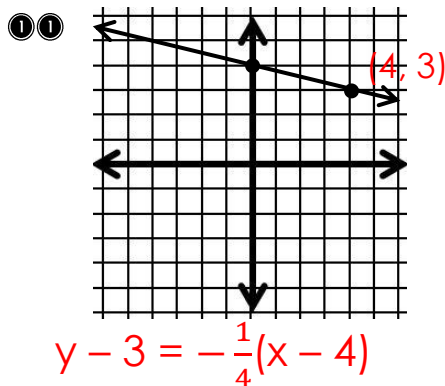Graph the equations below.

**⑦** y + 4 = -3(x + 2)

(-2, -4); m = -3

**⑧** y + 3 = -2(x − 2)

(2, -3); m = -2

**⑨** y − 1 = 3(x + 6)

(-6, 1); m = 3

**⑩** y + 4 = $\frac{-5}{2}$(x − 3)

(3, -4); m = $\frac{-5}{2}$



Write an equation in point-slope form of the line graphed below.  (Use the right hand point)

**⑪**



(4, 3)

$$y - 3 = -\frac{1}{4}(x - 4)$$

**⑫**



(3, 1)

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

**⑬**



(1, -1)

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

Write an equation in point-slope form of the line that passes through the two points given.  Use the first point to write the equation.

**⑭** (4,7) and (5, 1)

$$y - 7 = -6(x - 4)$$

**⑮** (9, -2) and (-3, 2)

$$y + 2 = \frac{-1}{3}(x - 9)$$

**⑯** (3, -8) and (7,-2)

$$y + 8 = \frac{3}{2}(x - 3)$$