

Name _____ Hour _____ Date _____

Algebra I
Point-Slope Form Worksheet

Give an equation in point-slope form that satisfies the given information.

1. Passes through (2, 3) and has slope of $-\frac{1}{2}$. 2. Passes through (-1, 4) and $m = 4$.

3. Passes through (0, 2) and has slope of $-\frac{5}{3}$. 4. Passes through (4, -2) and $m = 0$.

5. Passes through (-4, 6) and (-2, 5) 6. Passes through (-1, -7) and (1, 3)

Give the slope of each of the following lines. Name a point on each line.

7. $y + 2 = \frac{2}{3}(x - 4)$

8. $y - 3 = \frac{1}{2}(x - 3)$

9. $y + 5 = \frac{1}{4}(x + 2)$

10. $Y = 2(x + 3)$

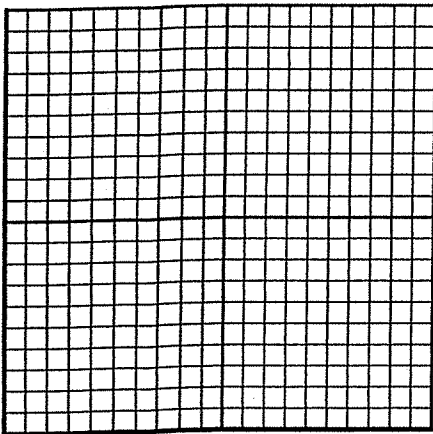
11. $y - 8 = -3(x + 1)$

12. $Y + 3 = -\frac{1}{5}x$

Graph each of the following lines by first giving the point and the slope.

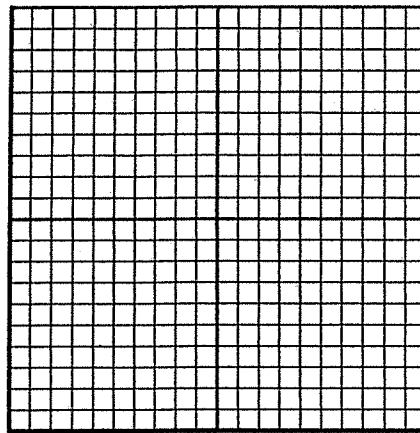
13. $y + 2 = \frac{1}{3}(x + 1)$

Point _____ Slope _____



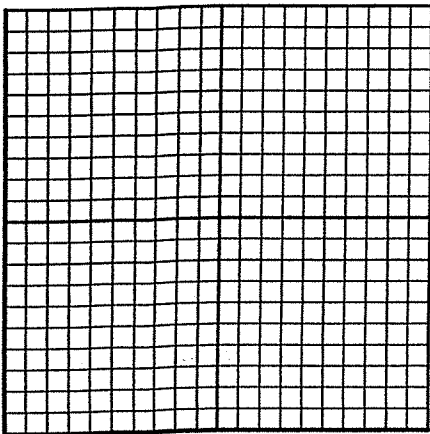
14. $y + 1 = -\frac{1}{2}(x - 3)$

Point _____ Slope _____



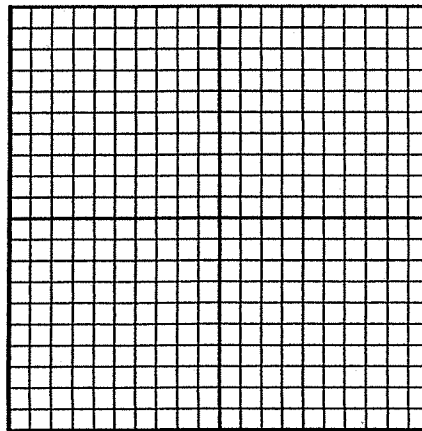
15. $y - 3 = -2(x - 4)$

Point _____ Slope _____



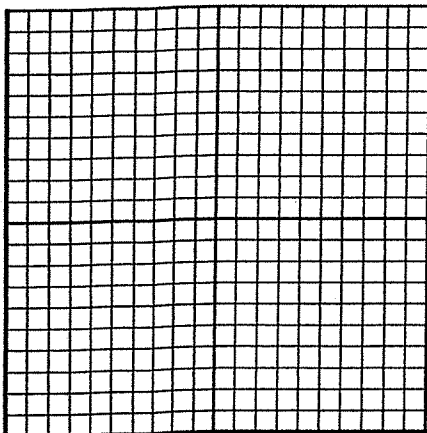
16. $y - 5 = 3x$

Point _____ Slope _____



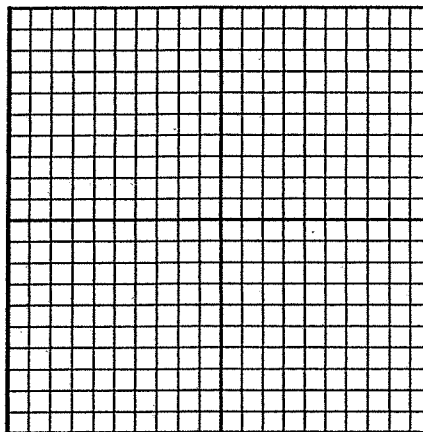
17. $y + 3 = 0(x - 3)$

Point _____ Slope _____



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

Point _____ Slope _____



Name _____ Date: _____ Period: _____

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.

Ⓐ (2, 7); $m = -4$

Ⓑ (12, 5); $m = -3$

Ⓒ (4, -5); $m = 6$

Ⓓ (-6, -2); $m = 3$

Ⓔ (7, -6); $m = \frac{1}{2}$

Ⓕ (-8, 2); $m = -\frac{3}{4}$

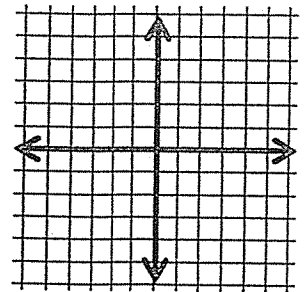
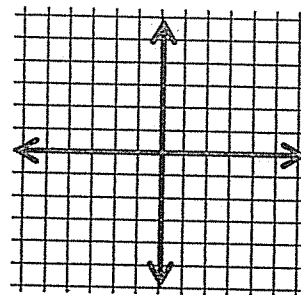
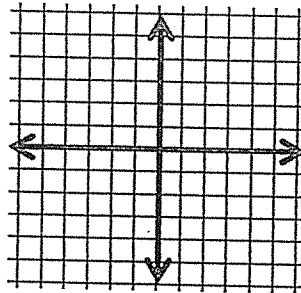
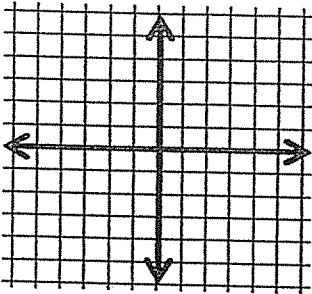
Graph the equations below.

Ⓖ $y + 4 = -3(x + 2)$

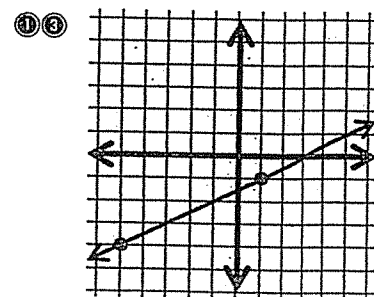
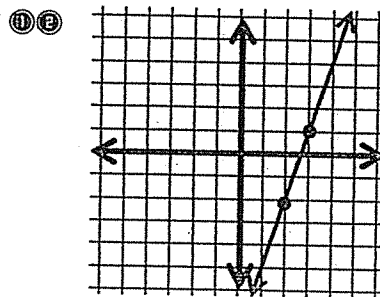
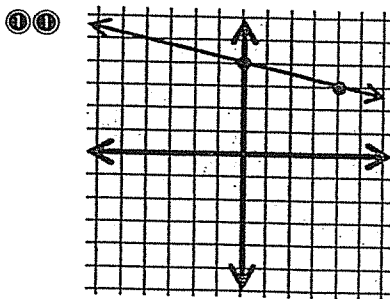
Ⓗ $y + 3 = -2(x - 2)$

Ⓙ $y - 1 = 3(x + 6)$

Ⓚ $y + 4 = \frac{-5}{2}(x - 3)$



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



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.

Ⓟ Ⓟ (4, 7) and (5, 1)

Ⓡ Ⓡ (9, -2) and (-3, 2)

Ⓢ Ⓢ (3, -8) and 7(-2)

1

2

3

4

5

6