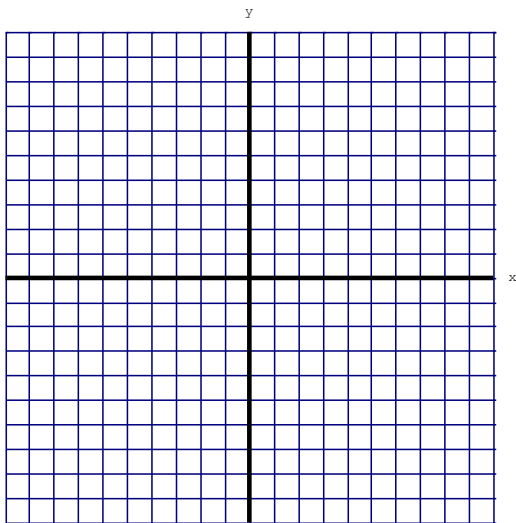Name_____

Writing a Linear Equation using a Graph Notes

Objective: *Sketch a graph from the given slope and point, then create an equation in slope-intercept form.*

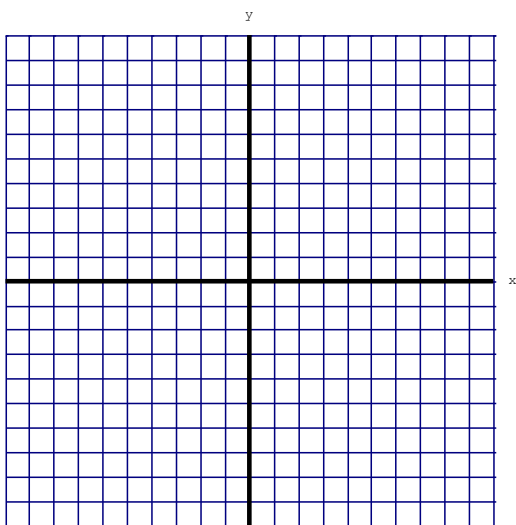1. $m = \frac{1}{2}$; $(0, 4)$

To graph:

1. Plot the given point.
2. From the given point, use the slope. Go up (if the numerator is positive) or down (if the numerator is negative), then right (for the denominator) and plot a second point.
3. Draw the line (with arrows)
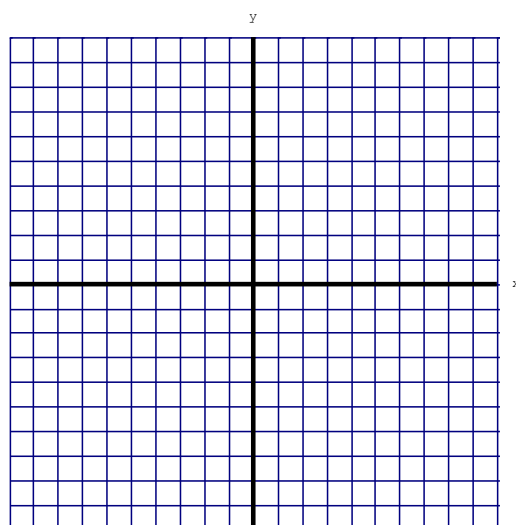
To write an equation in slope intercept form:

1. Use the equation: $y = mx + b$
2. Find the y-intercept by looking at your graph and plug that in for 'b'.
3. Use the given slope and plug that in for 'm'.
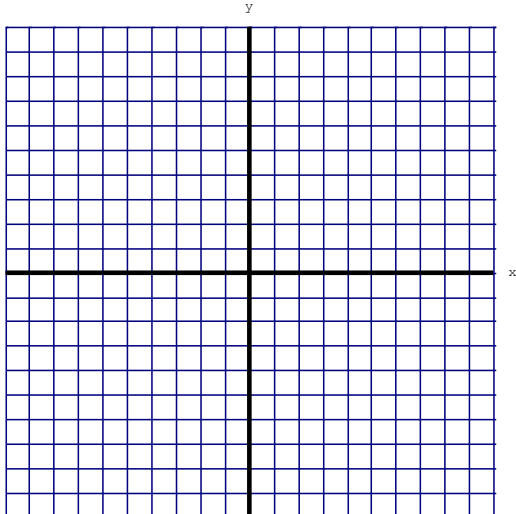
Equation for #1: $y = \frac{1}{2}x + 4$

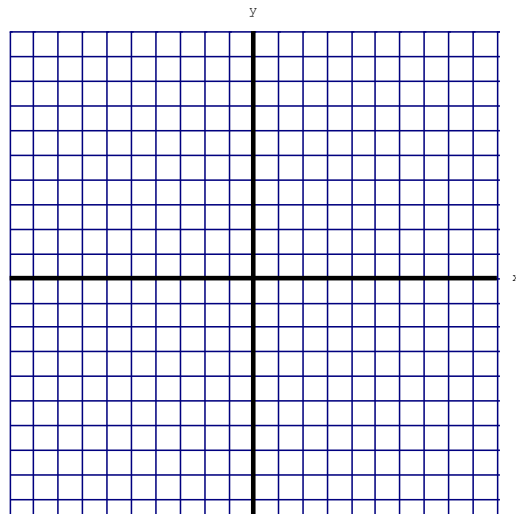2. $m = -\frac{1}{3}$; $(-6, 3)$

3. $m = 5$; $(-2, -5)$

4. $m = -\frac{4}{3}$; $(-9, 8)$

5. $m = \frac{2}{5}$; $(5, 10)$

Name_____

Writing a Linear Equation using Slope-Intercept Form Notes
Write an equation in slope intercept form with the given slope, and through the given point.

6. $m = \frac{2}{5}$ $(1, 7)$ 7. $m = \frac{1}{2}$ $(-5, -3)$

8. $m = \frac{1}{5}$ $(1, 6)$ 9. $m = \frac{4}{5}$ $(-4, 0)$

10. $m = 0$ $(6, -2)$ 11. $m = \emptyset$ $(3, -8)$