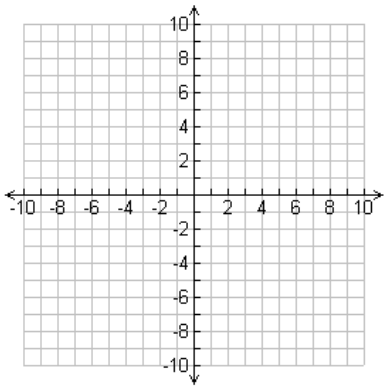
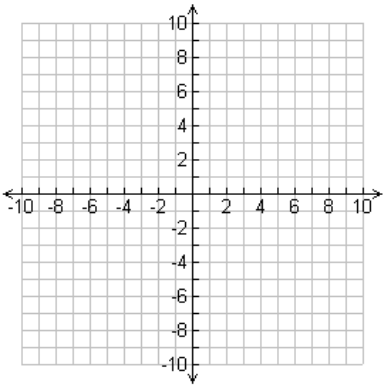
4-2 & 4-3 Practice and Extend

Graph each equation from point slope form, then simplify to slope intercept and standard form

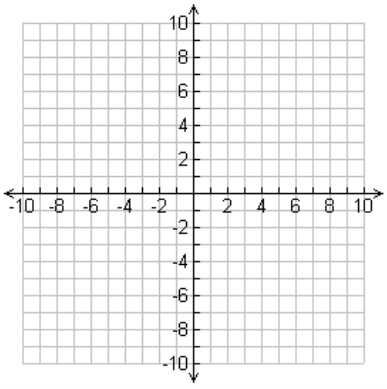
1. $y + 2 = -\frac{1}{4}(x - 3)$



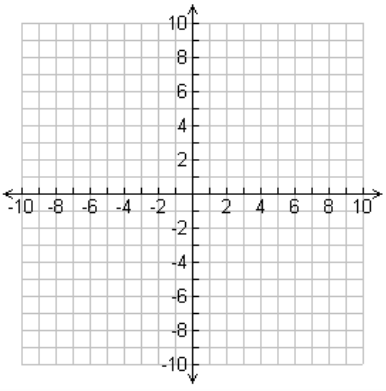
2. $y - 1 = -\frac{2}{3}(x - 5)$



3. $y + 4 = \frac{1}{3}(x + 7)$



4. $y + 8 = -\frac{5}{3}(x - 4)$



Determine if the given point is on the line. Explain why or why not.

5. (3, -1); $y = \frac{1}{3}x + 5$

6. (6, -2) ; $y = \frac{1}{2}x - 5$

7. Consider the standard form of a linear equation: Ax + By = C

a. Rewrite the equation in slope intercept form.

b. What is the slope?

c. What is the y intercept?

Without converting into slope intercept form, identify the slope and the y intercept of each of the following equations.

8. 3x + 4y = 12

slope:

y intercept:

9. 5x – 7y = 21

slope:

y intercept:

10. 4x – 10 y = - 15

slope:

y intercept:

11. -2x + 5y = 10

slope:

y intercept:

12. Write the equation of the line passing through the points $\left(\frac{5}{4}, 1\right)$ and $\left(-1, \frac{3}{4}\right)$ in slope intercept form.