Graphing

Slope-Intercept Form

The slope (m) of a line containing two points, P_1 and P_2, whose coordinates are (x_1, y_1) and (x_2, y_2), is given by:

$$\text{Slope} = m = \frac{y_2 - y_1}{x_2 - x_1}, \; x_2 \neq x_1$$

To find the **y-intercept (b)**, let $x = 0$.
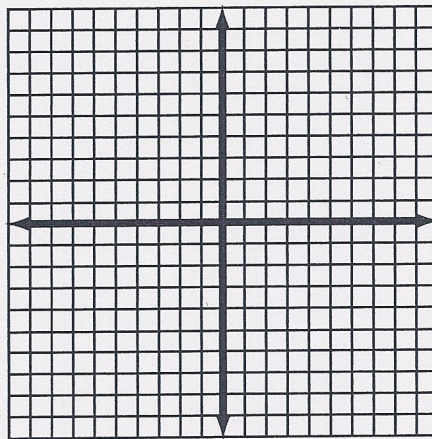
$8x - 2y = {}^-6$

$y = 4x + 3$

$m = \frac{4}{1} \begin{array}{l}\text{(up)} \\ \text{(to right)}\end{array}$

$b = 3$

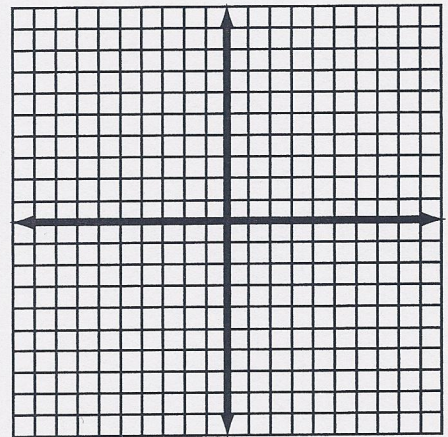Solve for y, state the m and b, and graph.

1. $4x - 2y = {}^-12$

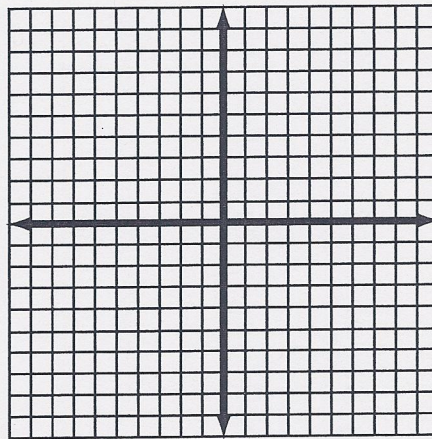**2.** $2x + 2y + 4 = 0$

3. $y - 3x = 6$

4. $5x + y = {}^-10$