

Slope of a standard form linear equation

I'm not robot!

3/4 find the multiples of 4: 4, 8, 12, 16, 20 } 8 is the least common multiple.
 1/8 find the multiples of 8: 8, 16, 24

$8[y = 3/4x - 1/8]$ Multiply ALL terms by 8.

$$8y = 6x - 1$$

$-6x + 8y = 6x - 6x - 1$ Subtract $6x$ from both sides to get x and y on the same side.

$$-6x + 8y = -1$$

$-1[-6x + 8y = -1]$ Multiply ALL terms by -1 to make the lead coefficient positive.

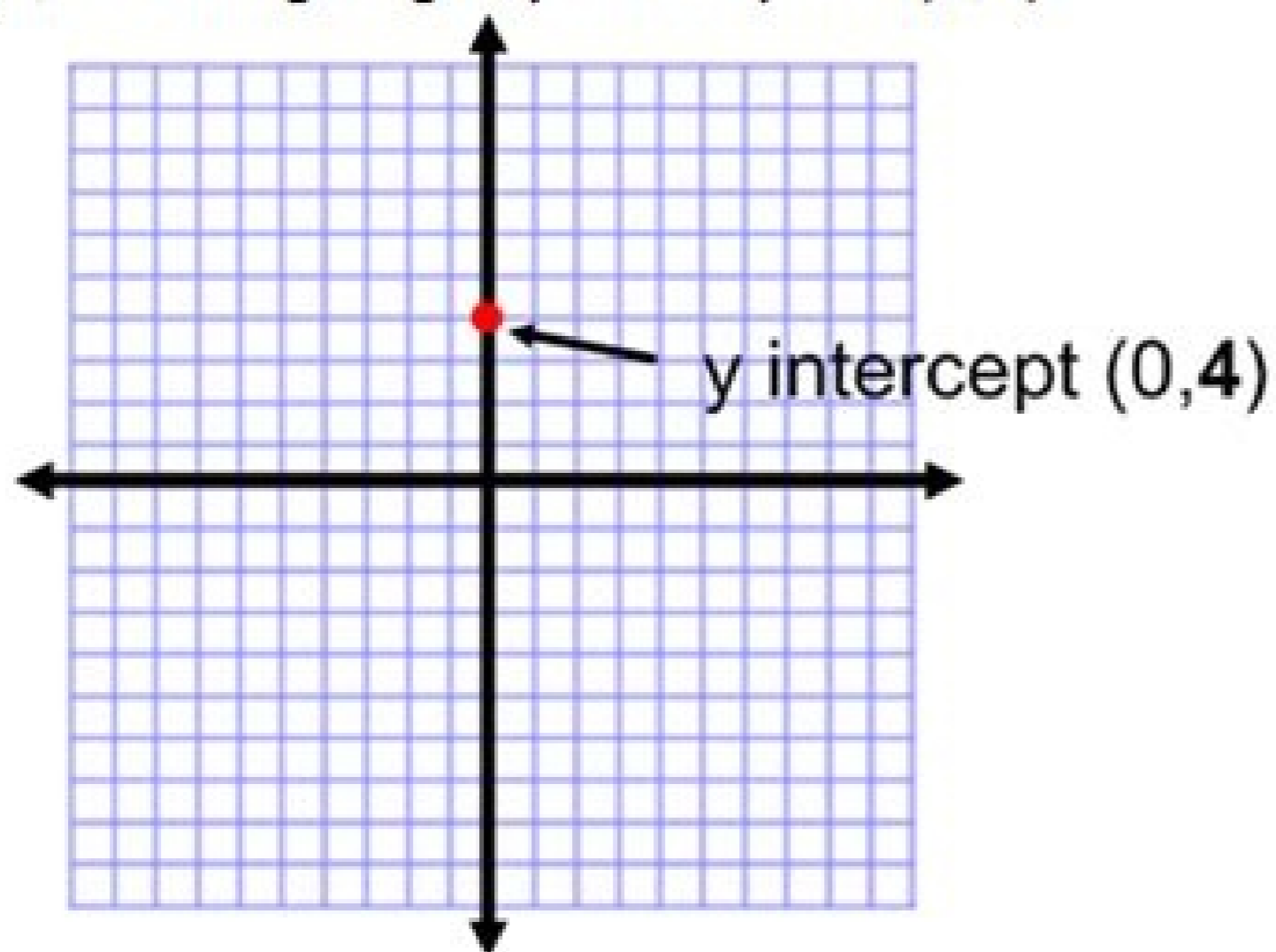
$$6x - 8y = 1$$
 The equation written in standard form.

Graph the equation: $y = 2x + 4$

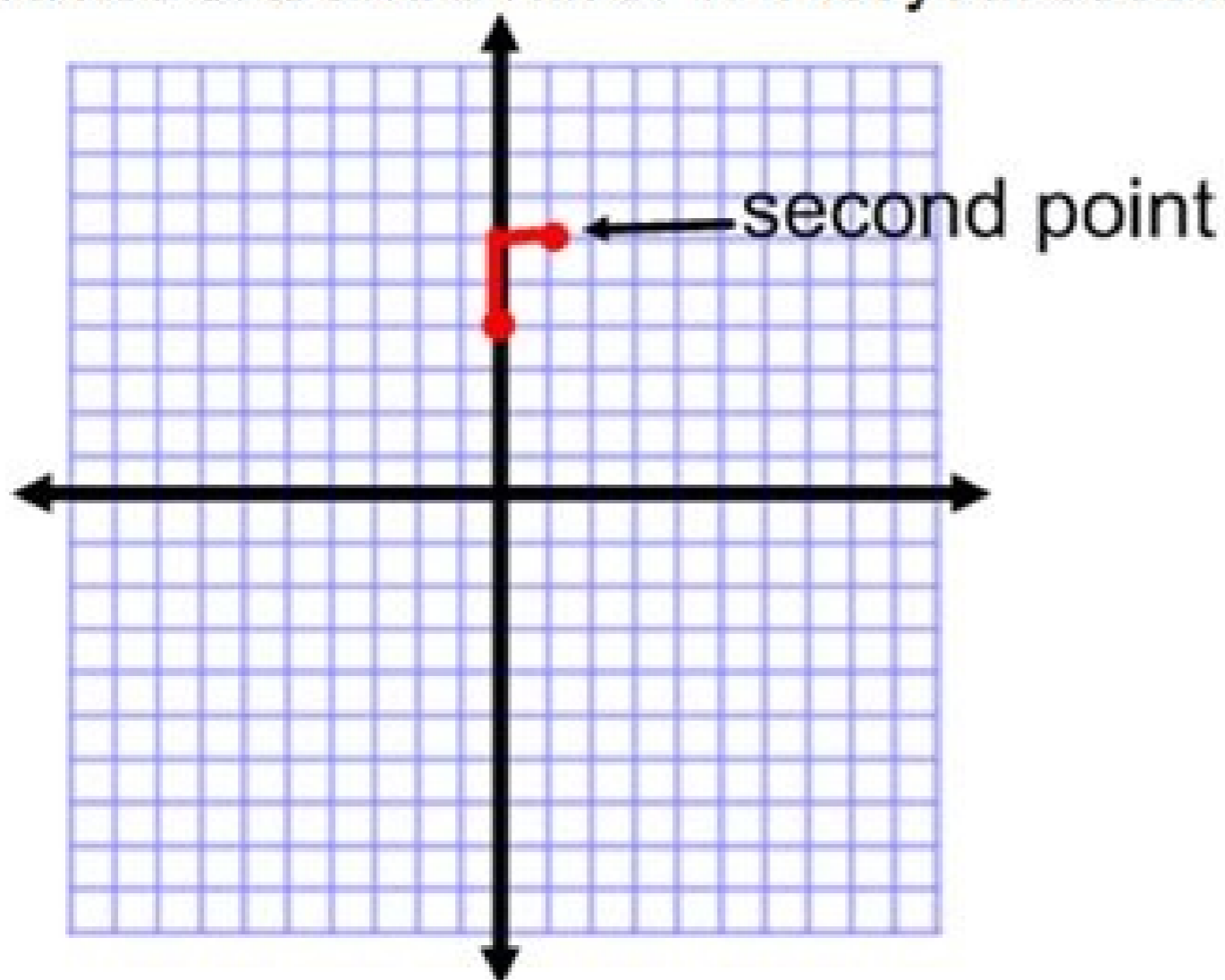
$$y = 2x + 4$$

Slope Y-intercept

Step 1: Plot the y-intercept on your graph. 4 is the y-intercept, so I am going to plot the point (0,4).



Step 2: Identify the slope. (The coefficient of x is the slope.) The slope is 2. From the y-intercept, you are going to count a rise of 2 and a run of 1. Plot your second point.



Convert into vertex form and determine the vertex

$$f(x) = 2x^2 + 8x + 7$$

$$f(x) = ax^2 + bx + c \longrightarrow f(x) = a(x-h)^2 + k$$

$$f(x) = (2x^2 + 8x) + 7$$

$$f(x) = 2(x^2 + 4x) + 7$$

$$d = \left(\frac{4}{2}\right)^2 = 2^2 = 4$$

