Topic: Graphing linear equations

Question: In the slope-intercept form of the equation of a line, which letter represents the slope?

$$y = mx + b$$

Answer choices:

A y

B x

C b

D m

Solution: D

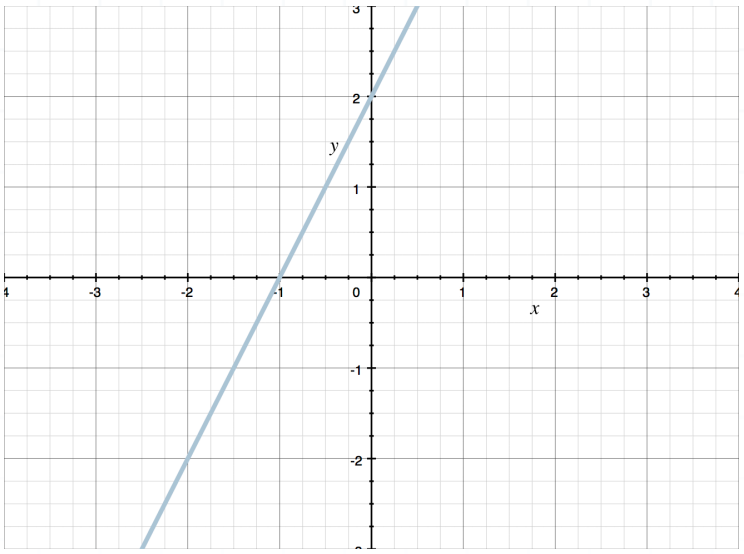
m is the letter that represents the slope. x and y together are the coordinates of points on the line, and b is the y-coordinate of the point where the graph intersects the y-axis.

Topic: Graphing linear equations

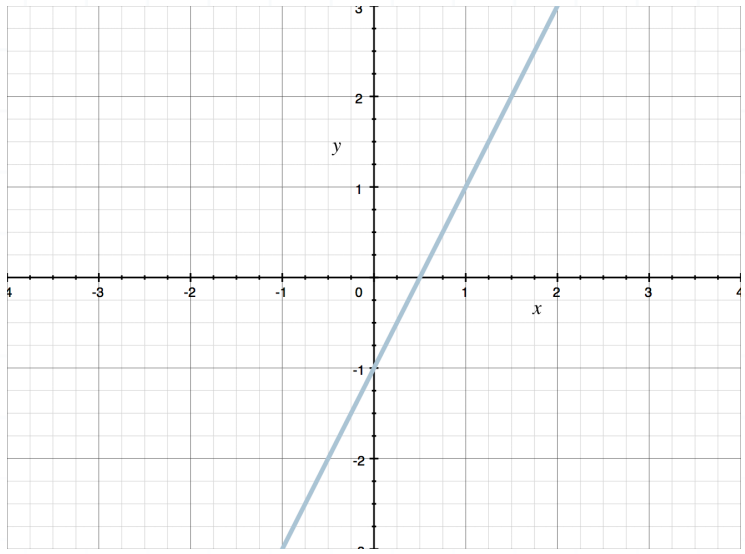
Question: Choose the graph of $y = 2x - 1$.

Answer choices:

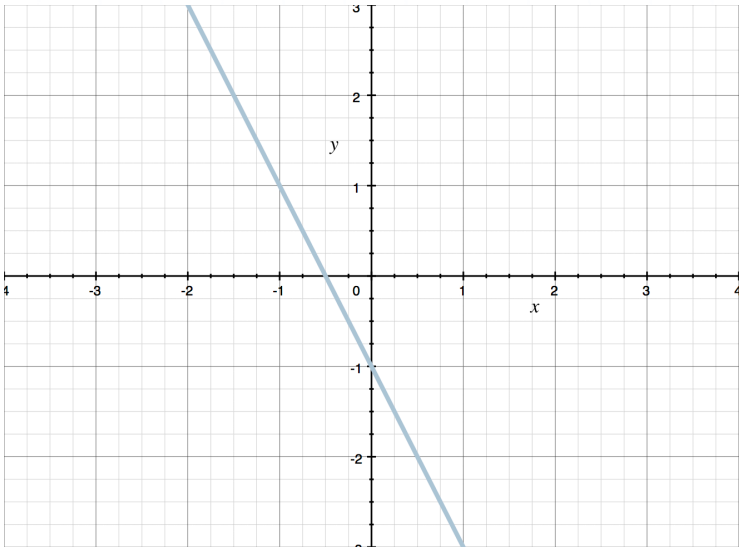
A



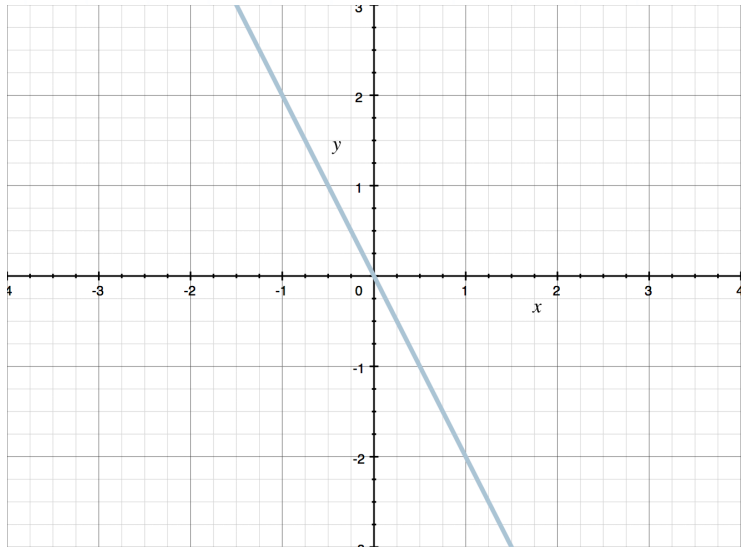
B



C



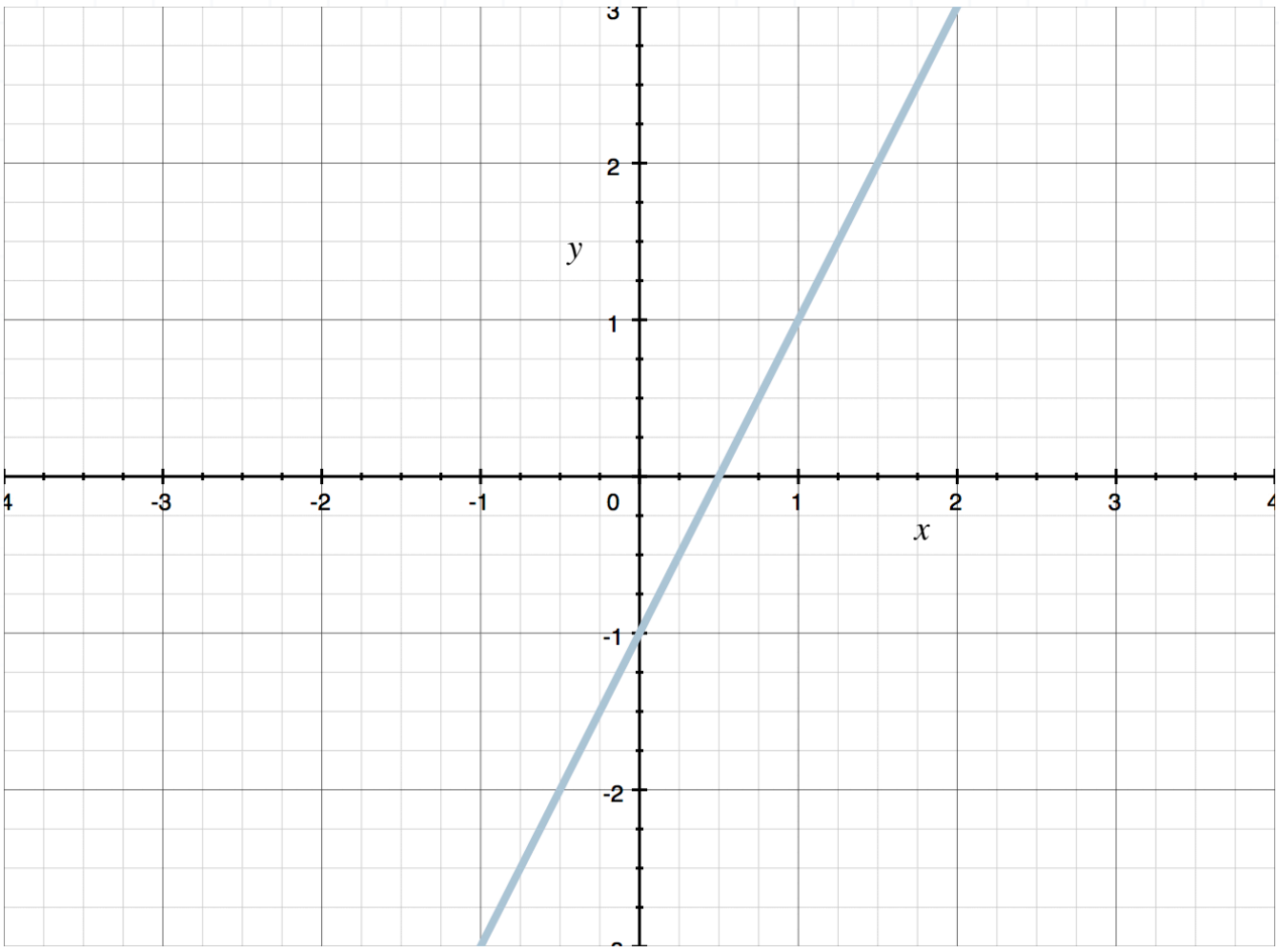
D



Solution: B

The linear equation is already in slope-intercept form, so we can see that the slope is $m = 2$ and the y-intercept is $b = -1$.

Since the slope is positive, we know that the line will lean to the right. The graph is

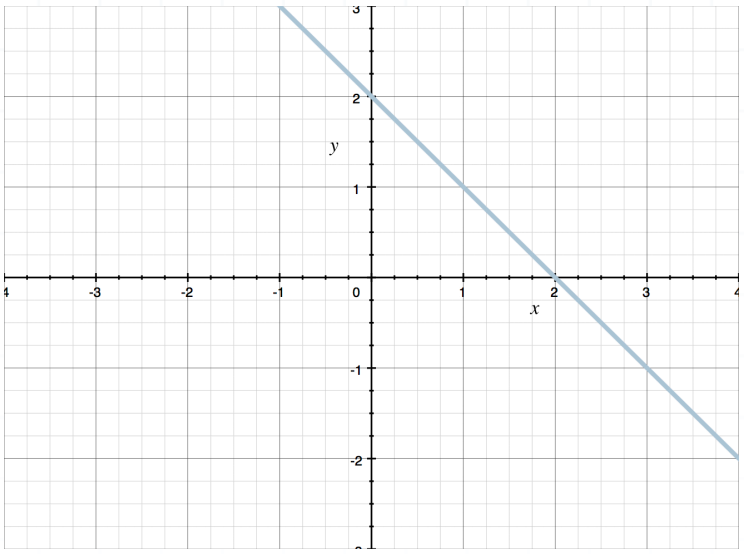


Topic: Graphing linear equations

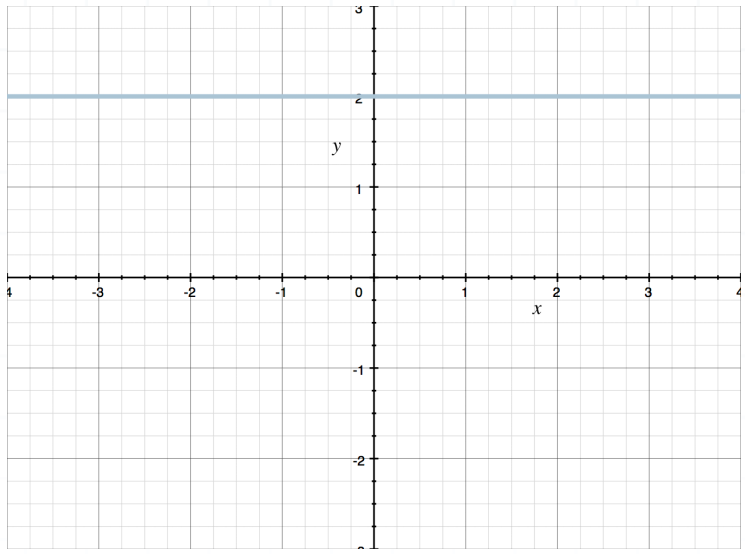
Question: Choose the graph of $x + y = 2$.

Answer choices:

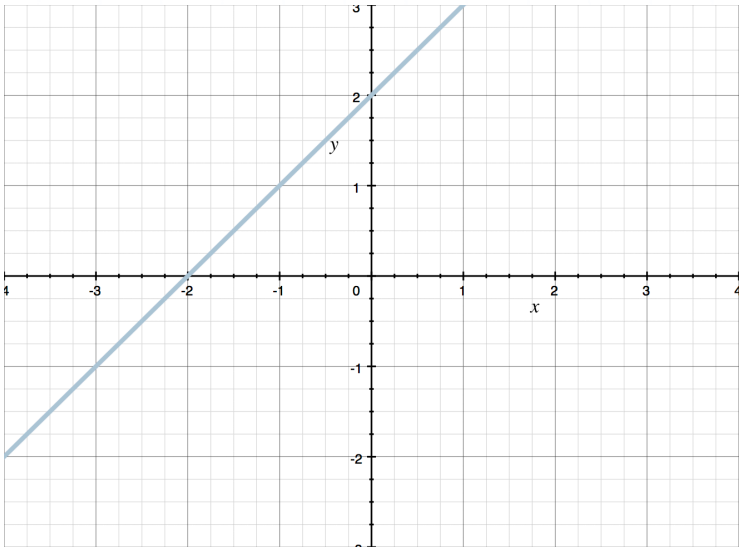
A



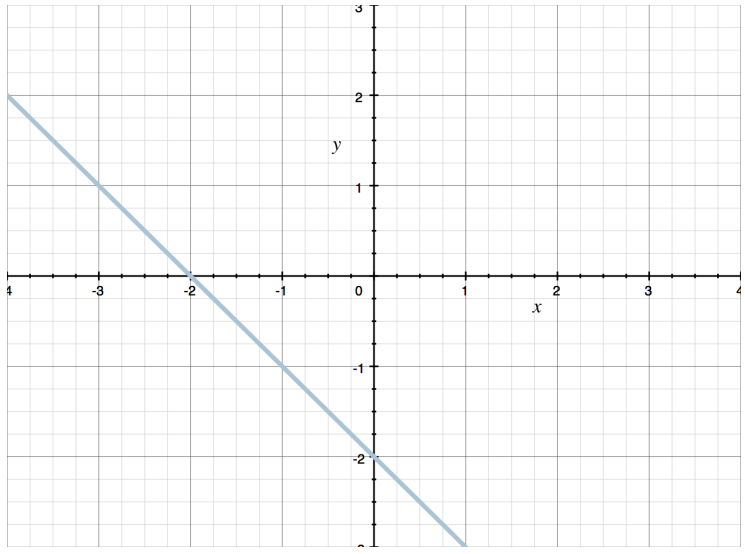
B



C



D



Solution: A

The linear equation isn't already in slope-intercept form, so we'll subtract x from both sides in order to solve for y.

$$x + y = 2$$

$$x - x + y = 2 - x$$

$$y = -x + 2$$

With the equation in slope-intercept form, we can identify that the slope is $m = -1$ and the y-intercept is 2.

Since the slope is negative, we know that the line will lean to the left. The graph is