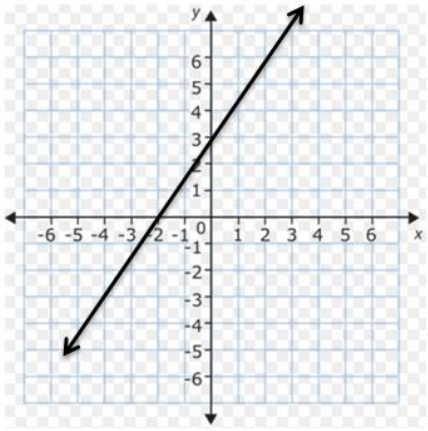
Possible Solutions

Which equation below best represents the line graphed?



- In order to write an equation from a graph, determine the *y*-intercept and the slope. The *y*-intercept of the line is (0, 3) because this is where the line crosses the *y*-axis.
- The next step is to determine the slope of the line. Using $\frac{rise}{run}$ the slope is $\frac{3}{2}$. This makes the equation $y = \frac{3}{2}x + 3$.
- The solution is $y = \frac{3}{2}x + 3$.

Possible Solution 2

- In order to write an equation from a graph, you need to determine the *y*-intercept and the slope. The *y*-intercept of the line is (0, 3) because this is where the line crosses the *y*-axis.
- The next step is to determine the slope of the line. The slope formula could be used to find the slope.

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{3 - 0}{0 - (-2)} = \frac{3}{2}$$

- This makes the equation y = $\frac{3}{2}x + 3$.

Possible Solution 3

- Make a table of three or more points to help determine the slope and *y*-intercept.
- The slope is $\frac{\Delta y}{\Delta x} = \frac{3}{2}$.
- The *y*-intercept is (0, 3) because that is where the line crosses the *y*-axis.

	x	y	
+2	-4	-3	+3
+2	-2	0	+3
+2	0	3	+3