## Exercise 8

For the following exercises, determine whether the relation represents y as a function of x.

$$5x + 2y = 10$$

## Solution

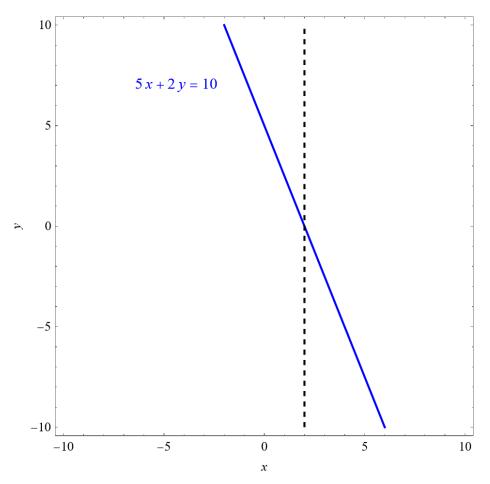
Try to solve the equation for y, the output.

$$5x + 2y = 10$$
  

$$2y = -5x + 10$$
  

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

The relation 5x + 2y = 10 is a function because for every input x, there's exactly one output given by equation (1). This is reflected in the graph by the fact that any vertical line passes through the curve exactly once.



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