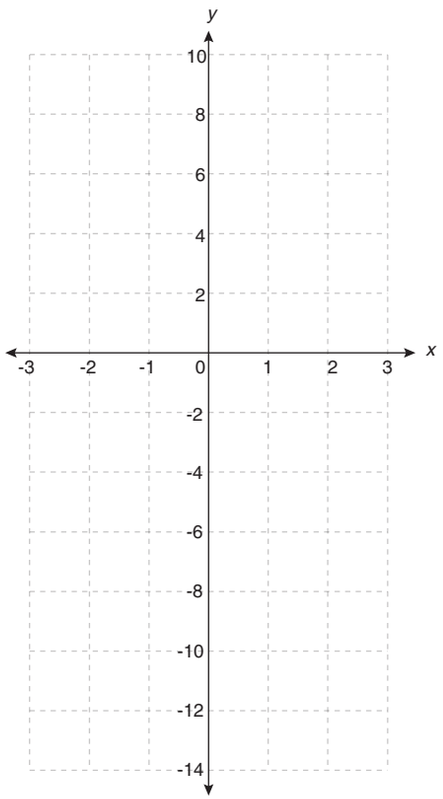
Notice in *Example 2* that the written description, mapping diagram, table of values, graph, and equation are simply different ways of representing the same information. The different representations serve different purposes. For example, an equation is used to algebraically manipulate, while a graph allows you to easily visualize the relationship between the variables.

Practice Run

For the linear function $y = 5x - 2$,

- Complete the table of values.
- Label the axes on the Cartesian coordinate plane.
- Plot the points from the table of values on the Cartesian coordinate plane.
- Connect the ordered pairs (points) in a line, using a straight edge.

***x* (input)**	***y* (output)**	**(*x*, *y*)**
–2	$y = 5(\quad) - 2 =$	(,)
	–7	
0		
1		
	8	



Compare your answers.

For the linear function $y = 5x - 2$,

- Complete the table of values.
- Label the axes on the Cartesian coordinate plane.
- Plot the points from the table of values on the Cartesian coordinate plane.
- Connect the ordered pairs (points) in a line, using a straight edge.

x (input)	y (output)	(x, y)
–2	$y = 5(-2) - 2 = -12$	(–2, –12)
$-7 = 5(x) - 2$ $-5 = 5x$ $-1 = x$ –1	–7	(–1, –7)
0	$y = 5(0) - 2 = -2$	(0, –2)
1	$y = 5(1) - 2 = 3$	(1, 3)
$8 = 5(x) - 2$ $10 = 5x$ $2 = x$ 2	8	(2, 8)