Lesson 6.4: Linear Functions

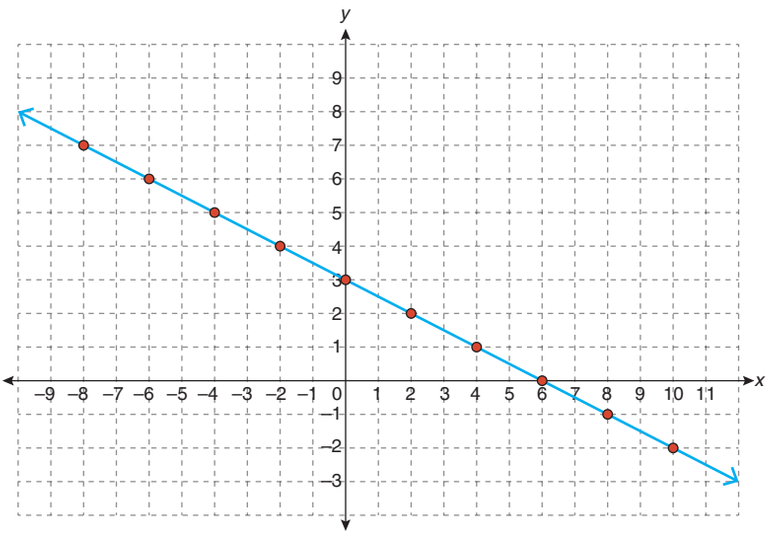
Practice – IV

1. Sketch the graph of $y = -\frac{1}{2}x + 3$.

Points used will vary. Select x-values and determine the corresponding y-values.

x	y
–8	7
–6	6
–4	5
–2	4
0	3
2	2
4	1
6	0
8	–1
10	–2

Plot the points and draw a line through them.



2. Which set of ordered pairs does not represent a function? Explain.

a. $\{(3,6),(4,9),(5,12),(3,0)\}$

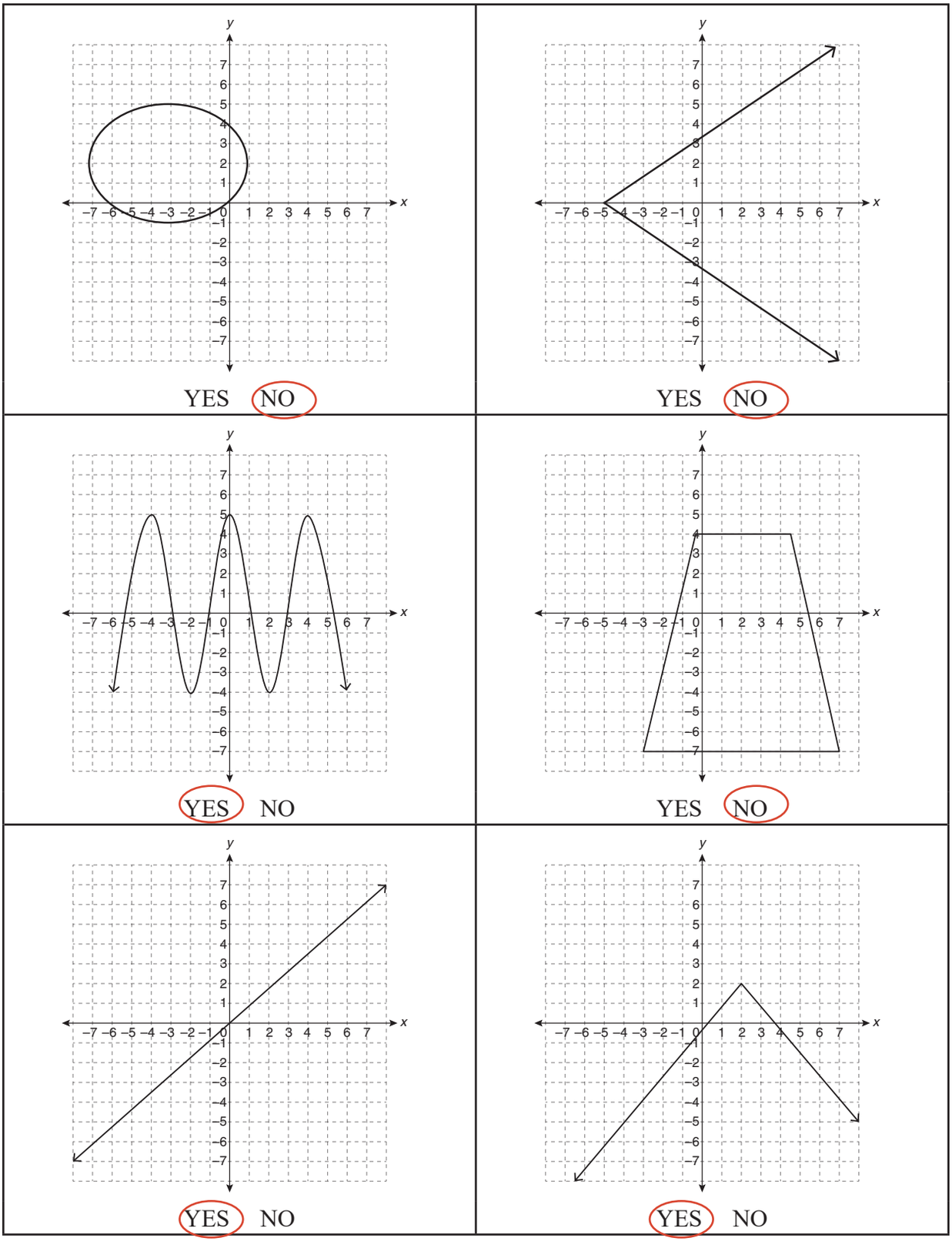
b. $\{(5,-6),(6,8),(8,10),(9,-10)\}$

c. $\{(-3,-5),(-4,-8),(-5,-9),(-6,0)\}$

d. $\{(7,0),(4,-1),(-6,1),(-3,0)\}$

The set $\{(3,6),(4,9),(5,12),(3,0)\}$ is not a function because there are two values of y for one value of x.

3. Circle YES if the graph of the relation represents a function or NO if it does not represent a function.



4. Given $g(x) = 5x - 10$,

   a. make a table of values for the domain $\{-1, 0, 1, 2, 3\}$.

x	0	1	2	3
$g(x)$	-10	-5	0	5

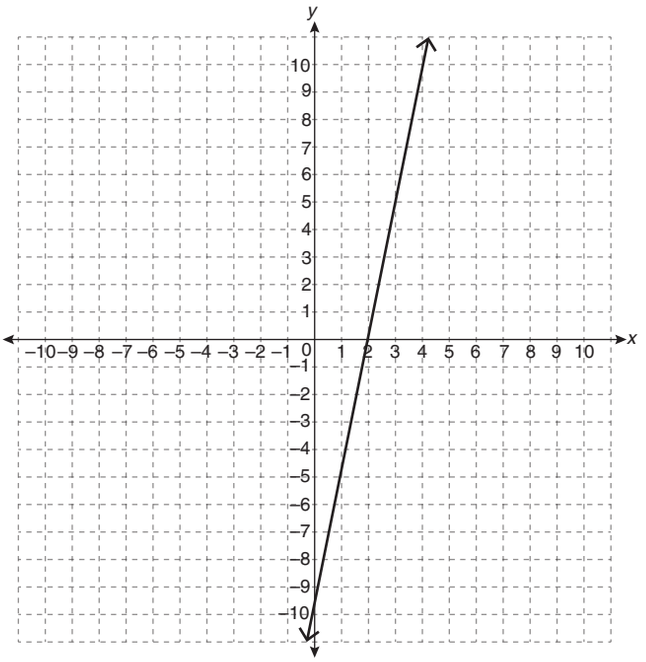
$g(0)$ $g(1)$ $g(2)$ $g(3)$

$g(0) = 5(0) - 10$ $g(1) = 5(1) - 10$ $g(2) = 5(2) - 10$ $g(3) = 5(3) - 10$

$g(0) = -10$ $g(1) = -5$ $g(2) = 0$ $g(3) = 5$

   b. graph the function $g(x) = 5x - 10$.

$\{(0, -10), (1, -5), (2, 0), (3, 5)\}$



Please complete *Lesson 6.4 Explore Your Understanding Assignment*, located in *Workbook 6.4*.