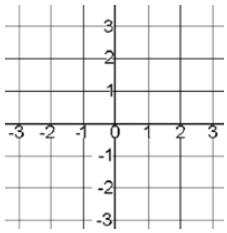
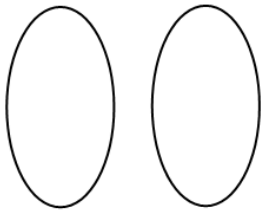
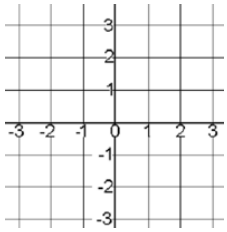
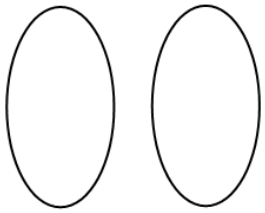
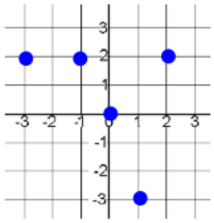
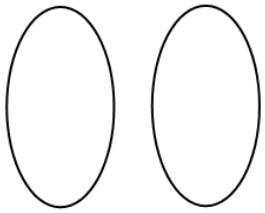
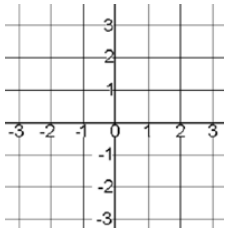
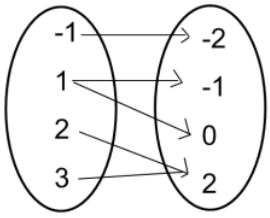
Name: Period: Date:

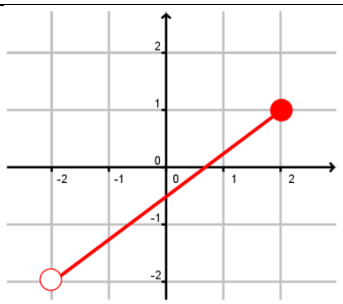
Practice Worksheet: Relations & Functions

Use the given form of each relation to complete the other forms. Then determine if the relation is a function.

	Set of ordered pairs	Table	Graph	Mapping Diagram	Function?
1]	$\{(-2,-1),(2,1),(-1,-2),(1,2)\}$	x | y			
2]		x | y 1 | -2 -3 | -1 1 | 0 2 | 2 0 | 3			
3]		x | y			
4]		x | y			

Determine if each graph shows a function or a relation only. Then identify the domain and range.

5]

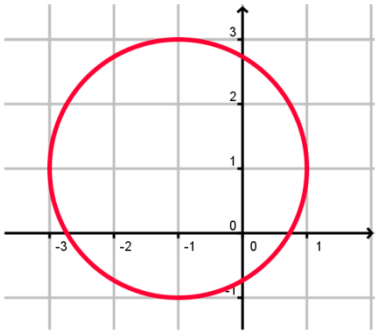


Domain:

Range:

Function?

6]

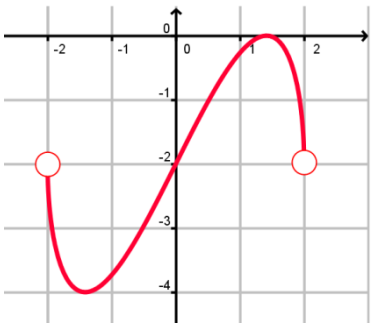


Domain:

Range:

Function?

7]



Domain:

Range:

Function?

Identify the domain and range, then evaluate each function for the given value of x.

8] $f = \{(10,7), (-2,4), (5,3), (4,10)\}$

Domain:

Range:

Find $f(5)$.

9]

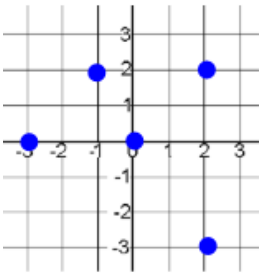
x	y
-3	3
-1	1
0	0
1	1

Domain:

Range:

Find $f(1)$.

10]

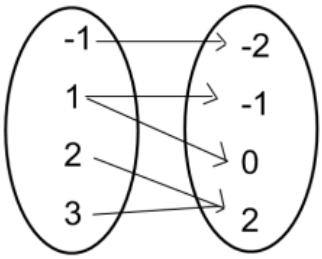


Domain:

Range:

Find $f(-2)$.

11]

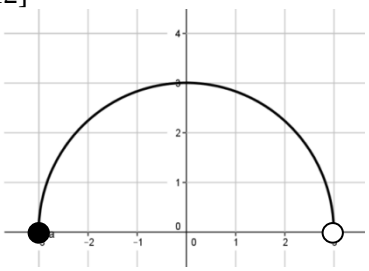


Domain:

Range:

Find $f(3)$.

12]

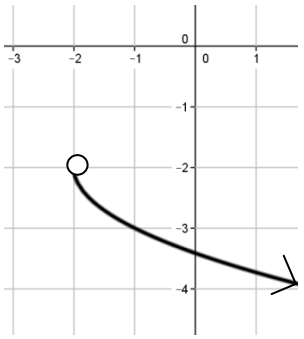


Domain:

Range:

Find $f(0)$.

13]



Domain:

Range:

Find $f(-1)$.

Determine if each function below is <u>linear</u>. Then evaluate for the given value of x. Show your work.

14] $f(x) = 3\sqrt{x} - 5;\ f(9)$

15] $f(x) = 4x^2 + x - 2;\ f(-2)$

16] $f(x) = 3 - 3x;\ f\left(\frac{1}{6}\right)$

17] $f(x) = |x + 2|;\ f(-4)$

18] $f(x) = \frac{2}{x-2};\ f(6)$

19] $f(x) = \frac{2}{3}x - 5;\ f\left(-\frac{9}{2}\right)$