

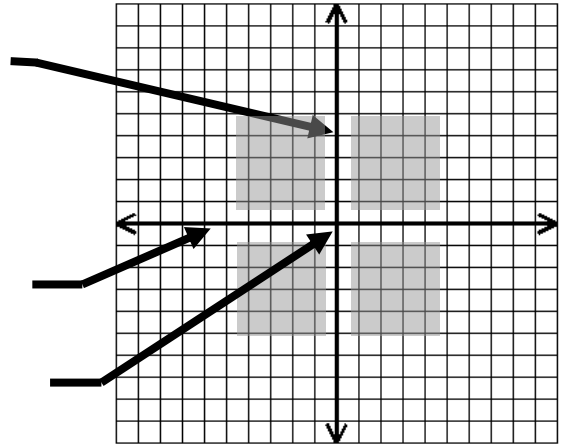
Name _____

RELATIONS AND FUNCTIONS – DAY 1



Label the following parts of the coordinate plane:

- 1) x-axis
- 2) y-axis
- 3) origin
- 4) quadrants



EXAMPLE#1: Plot the following points and tell what quadrant or axis the point is located.

M(2, -1) _____

N(-3, -3) _____

R(0, 3.5) _____

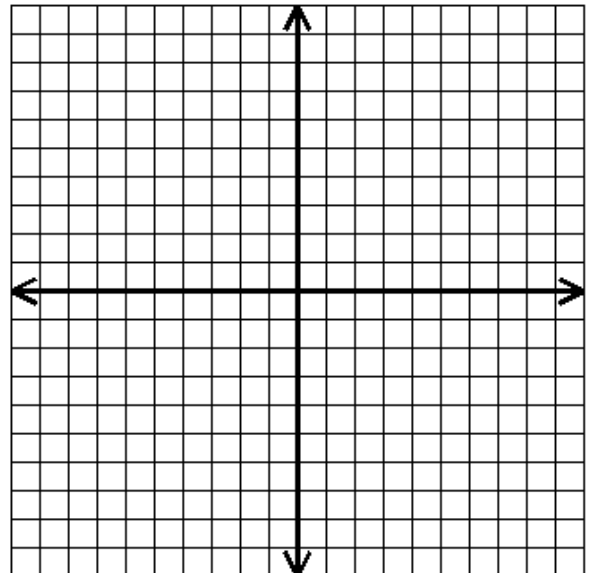
T(5, -2) _____

V(-3, 0) _____

W(- $\frac{1}{2}$, 1) _____

X(0, -2) _____

L(5, 7) _____



RELATION – a set of ordered pairs that can be expressed in four different ways:

_____, _____, _____, _____.

DOMAIN – the set of _____ in a relation. (All of the ____'s.)

RANGE – the set of _____ in a relation. (All of the ____'s.)

FUNCTION – a relation in which none of the first coordinates _____. (All of the _____ are _____.)

For Example#1, list the domain (D), the range (R), and tell whether or not it is a function.

D = _____ R = _____ Function? _____

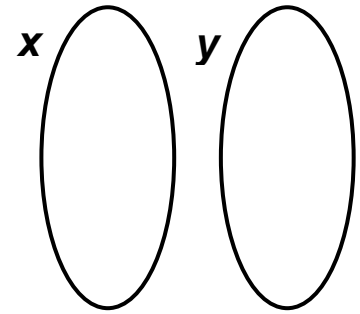
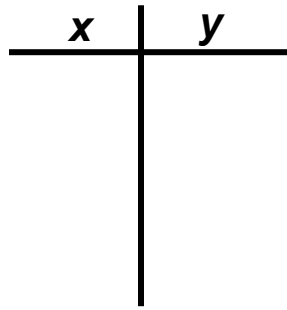
EXAMPLES: Make a table and/or mapping for the relation shown. State the domain and range. Determine whether or not the relation is a function.

2. $\{(11, -2), (12, -1), (13, -2), (9, 7)\}$

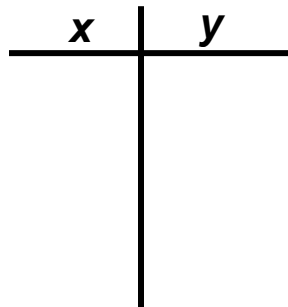
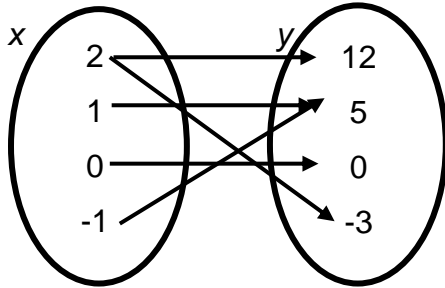
D = _____

R = _____

Function? _____



3.



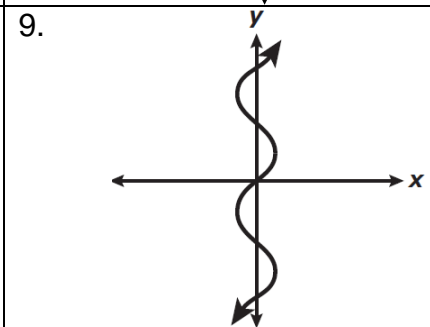
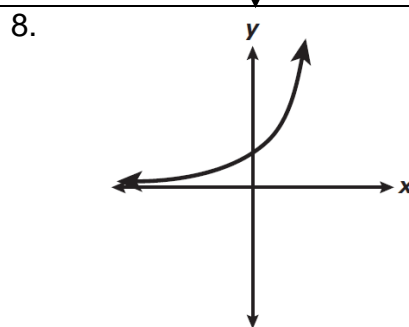
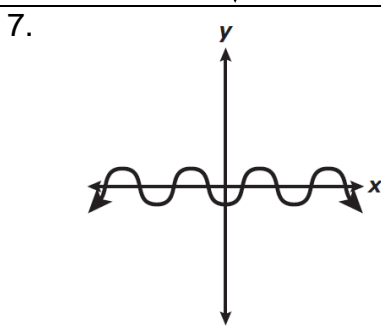
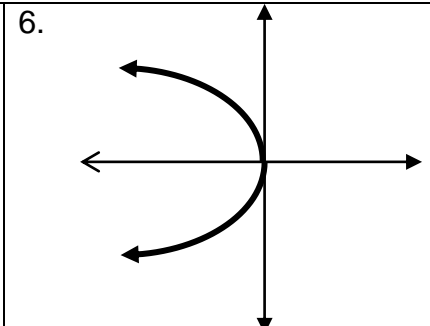
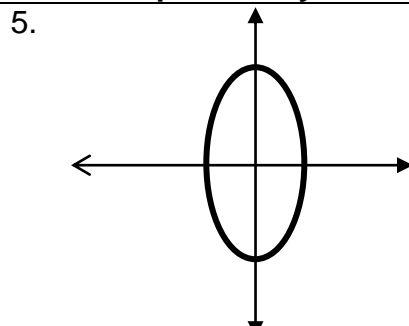
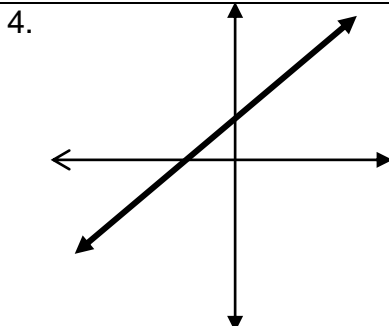
D = _____

R = _____

Function? _____

VERTICAL LINE TEST – a method used to determine if a graph is a function or not. If a vertical line passes through the graph _____, the graph is *not* a function.

EXAMPLES: Determine if each relation represents y as a function of x .



10. A point is missing from the graph of the relation shown. The relation is *not* a function. Which point is missing?

- A. (0, 0)
- B. (-1, 2)
- C. (1, 1)
- D. (2, -2)

