Name:
Class: $\qquad$
M8-U4: HW \#2 - Functions: Rules, Tables, Graphs, \& Mapping
Date: $\qquad$

Find the domain and range for the following relation.

1. $\{(-3,-7),(-1,-3),(0,-1),(2,3),(4,7)\}$

Determine whether each of the following relations is a function.
2. $\left\{(-4,-3),(-2,-2),(0,-1),\left(1,-\frac{1}{2}\right)\right\}$
3. $\{(0,0),(1,1),(4,2),(1,-1)\}$
4.


Determine whether each graph is the graph of a function.
5.

6.


Find the range of each function for the given domain.
7. $y=-3 x+1 ;\{-2,-1,0\}$
8. $y=-x^{2} ;\{-3,-1,1\}$

## Word Problem

9. A store bought a case of disposable cameras for $\$ 300$. The stores profit $p$ on the cameras is a function of the number $c$ of cameras sold. Find the range of the function $p=6 c-300$, when the domain is $\{0,15,50,62\}$.

In this situation what do the domain and range represent?

Model each rule with a table of values and a graph.
10. $y=\frac{3}{2} x-2$

| $x$ | $y$ |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


11. $y=|-2 x|$

| $x$ | $y$ |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


12. Is the ordered pair $(8,4.5)$ a solution to the function $y=\frac{3}{4} x-\frac{1}{2}$ ?

