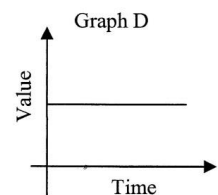
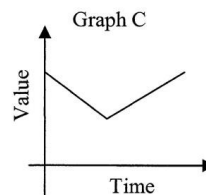
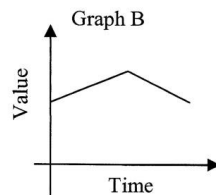
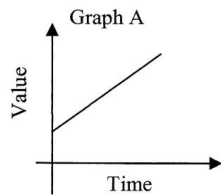


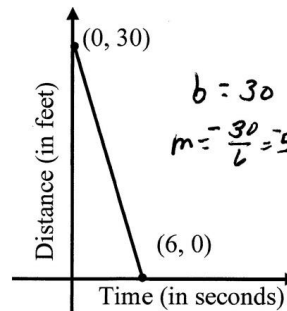
Use these graphs for problems 1 – 4. Choose the one that best matches the situation (1 point each).



- The value of the autographed book decreased at first, and then increased as the star become popular again. C
- The value of the company's stock first increased and then decreased. B
- The value of Jake's land first increased and then decreased. B
- The price of gas continues to increase. A

5. Here is a graph that shows a swimmer's distance from the shore as a function of time. Fill in the table of values for this graph, and then write the equation to show this function.

Equation: $d = -5t + 30$



Time (sec)	Distance (feet)
0	30
1	25
2	20
3	15
4	10
5	5
6	0

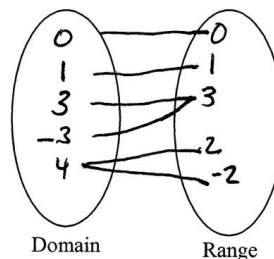
State the domain and range for each of the relations listed below, draw an arrow from each member of the domain to its corresponding member of the range, fill out a table, and tell whether or not the relation is a function.

6. $\{(0, 0), (1, 1), (3, 3), (-3, 3), (4, 2), (4, -2)\}$

Domain: $\{0, 1, 3, -3, 4\}$

Range: $\{0, 1, 3, 2, -2\}$

Function? NO



Domain	Range
0	0
1	1
3	3
-3	3
4	2
4	-2

State the domain and range for each of the following relations, then tell whether the relation is a function.

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

Domain: $\{2, 1, 0, -1, -2\}$

Range: $\{-2, -1, 0, 1, 2\}$

Function? YES

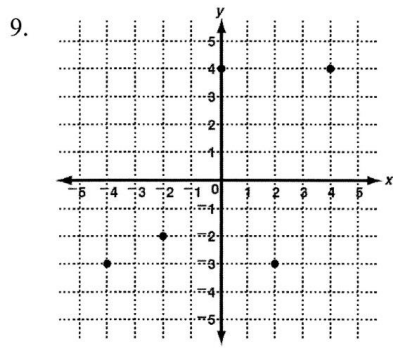
KEY

Give the domain and range for each relation. Then determine whether each relation is a function.

8. **Average High Temperatures**

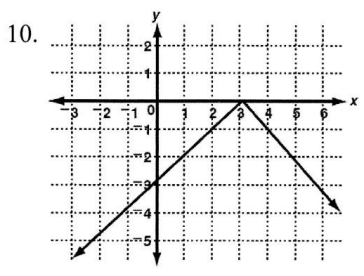
Month	Temperature
Jun	82°
Jul	88°
Aug	93°
Sep	82°

Range $\{82^\circ, 88^\circ, 93^\circ\}$
 Domain $\{\text{Jun, Jul, Aug, Sep}\}$
 $x \sim \{6, 7, 8, 9\}$
YES

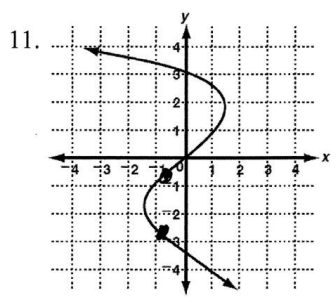


~~Range $\{82^\circ, 88^\circ, 93^\circ\}$~~
 Domain $\{0, -4, -2, 2, 4\}$ Range $\{-3, -2, 4\}$
YES

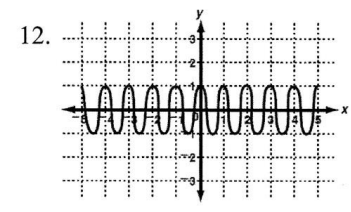
Use the vertical line test to determine whether each relation is a function. If not, identify two points a vertical line would pass through.



YES



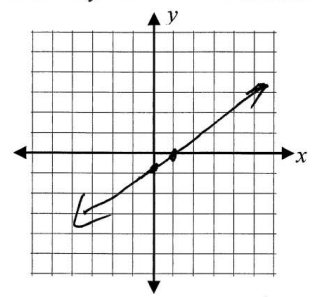
NO



YES

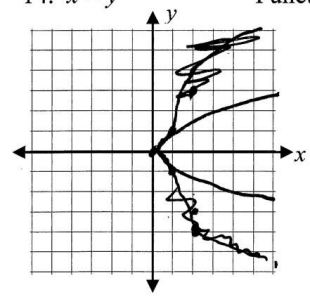
Graph each relation using the given information. Then determine if the relation is a function.

13. $y = \frac{x-1}{2}$ Function? YES



x	y
-3	-2
-1	-1
1	0
3	1
5	2

14. $x = y^2$ Function? NO



x	y
4	-2
1	-1
0	0
1	1
4	2