

1. Determine whether the relation below is a function. If it is a function, identify the domain and range.

x	y
2	-8
-1	1
0	0
1	1
2	8

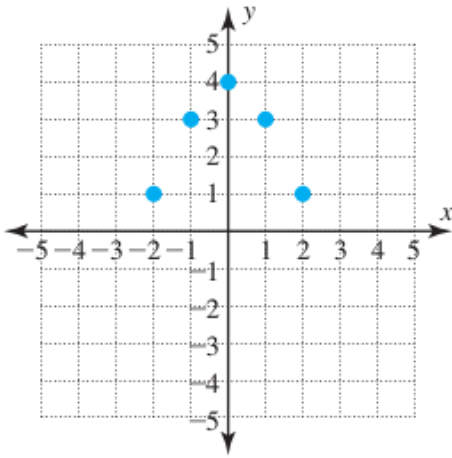
- A. The relation is a function with domain $D = \{-8, 1, 0, 1, 8\}$ and range $R = \{2, -1, 0, 1, 2\}$.
- B. The relation is a function with domain $D = \{-8, 1, 1, 8\}$ and range $R = \{2, -1, 1, 2\}$.
- C. The relation is a function with domain $D = \{2, -1, 1, 2\}$ and range $R = \{-8, 1, 1, 8\}$.
- D. The relation is not a function.
- E. The relation is a function with domain $D = \{2, -1, 0, 1, 2\}$ and range $R = \{-8, 1, 0, 1, 8\}$.

2. Determine whether the relation below is a function. If it is a function, identify the domain and range.

$$\{(3, 2), (-3, 2), (0, 13), (13, 0)\}$$

- A. The relation is a function with domain $D = \{3, -3, 13, 0\}$ and range $R = \{2, 13\}$.
- B. The relation is a function with domain $D = \{3, -3, 13, 0\}$ and range $R = \{2, 0, 13\}$.
- C. The relation is a function with domain $D = \{2, 2, 0, 13\}$ and range $R = \{3, -3, 13, 0\}$.
- D. The relation is a function with domain $D = \{2, 0, 13\}$ and range $R = \{3, -3, 13, 0\}$.
- E. The relation is not a function.

3. Use the vertical line test to determine whether each graph represents a function. If it is a function, identify the domain and range.



- A. The relation is a function with domain $D = \{-2, -1, 1, 2\}$ and range $R = \{1, 3\}$.
- B. The relation is a function with domain $D = \{-2, -1, 0, 1, 2\}$ and range $R = \{1, 3, 4\}$.
- C. The relation is not a function.
- D. The relation is a function with domain $D = \{1, 3\}$ and range $R = \{-2, -1, 1, 2\}$.
- E. The relation is a function with domain $D = \{1, 3, 4\}$ and range $R = \{-2, -1, 0, 1, 2\}$.

4. Determine whether the relation below is a function. If it is a function, identify the domain and range.

D	\rightarrow	R
3	\rightarrow	-5
3	\rightarrow	0
3	\rightarrow	4

- A. The relation is a function with domain $D = \{-5, 0, 4\}$ and range $R = \{3\}$.
- B. The relation is not a function.
- C. The relation is a function with domain $D = \{3\}$ and range $R = \{-5, 0, 4\}$.
- D. The relation is a function with domain $D = \{-5, 0, 4\}$ and range $R = \{3, 3, 3\}$.
- E. The relation is a function with domain $D = \{3, 3, 3\}$ and range $R = \{-5, 0, 4\}$.

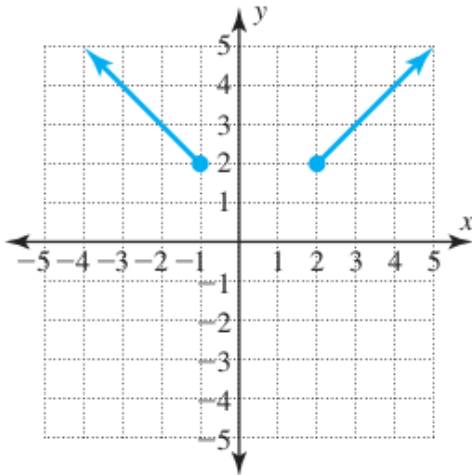
5. Use the table to answer the question: Is 3 an input value or an output value?

x	y
-1	1
2	3
5	5
8	7

A. 3 is an output value.

B. 3 is an input value.

6. Use the vertical line test to determine whether each graph represents a function. If it is a function, identify the domain and range.



A. The relation is a function with domain $D = (-\infty, -1)$ and range $R = (2, \infty) \cup (2, \infty)$

B. The relation is a function with domain $D = (-\infty, -1]$ and range $R = [2, \infty) \cup [2, \infty)$.

C. The relation is a function with domain $D = \{-5, -4, -3, -2, -1, 2, 3, 4, 5\}$ and range $R = \{2, 3, 4, 5\}$.

D. The relation is a function with domain $D = \mathbb{R}$ and range $R = \mathbb{R}$.

E. The relation is a function with domain $D = (-\infty, -1] \cup [2, \infty)$ and range $R = [2, \infty)$.

F. The relation is a function with domain $D = \{2, 3, 4, 5\}$ and range $R = \{-5, -4, -3, -2, -1, 2, 3, 4, 5\}$.

G. The relation is not a function.

H. The relation is a function with domain $D = (-\infty, -1) \cup (2, \infty)$ and range $R = (2, \infty)$.

7. Determine whether the relation below is a function. If it is a function, identify the domain and range.

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

A. The relation is a function with domain $D = \{-1, 1, 2, 3\}$ and range $R = \{-3, -2, 1, 1\}$.

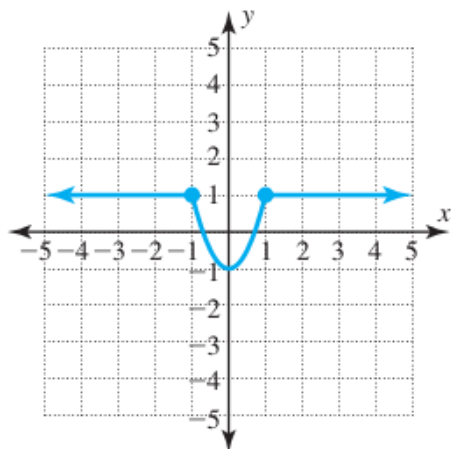
B. The relation is a function with domain $D = \{-3, -2, -1, 0, 1\}$ and range $R = \{-1, 0, 1, 2, 3\}$.

C. The relation is a function with domain $D = \{-3, -2, 1, 1\}$ and range $R = \{-1, 1, 2, 3\}$.

D. The relation is not a function.

E. The relation is a function with domain $D = \{-1, 0, 1, 2, 3\}$ and range $R = \{-3, -2, -1, 0, 1\}$.

8. Use the given graph to determine the domain and range of the function.



A. The domain is $D = [-1, 1)$ and the range is $R = \mathbb{R}$.

B. The domain is $D = \mathbb{R}$ and the range is $R = [-1, 1]$.

C. The domain is $D = \mathbb{R}$ and the range is $R = (-\infty, -1] \cup (1, \infty)$.

D. The domain is $D = (-\infty, -1] \cup [1, \infty)$ and the range is $R = \mathbb{R}$.

E. The domain is $D = \mathbb{R}$ and the range is $R = (-\infty, -1] \cup [1, \infty)$.

F. The domain is $D = \mathbb{R}$ and the range is $R = [-1, 1)$.

G. The domain is $D = [-1, 1]$ and the range is $R = \mathbb{R}$.