

## Worksheet 2: Domain and Range

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Instructions

- Read each question carefully
- Choose the best answer
- Circle the letter of your choice
- Only one answer per question

#### 1. What is the domain of a function?

- A) All possible output values
- B) All possible input values
- C) The highest point on a graph
- D) The y-intercept

#### 2. What is the range of a function?

- A) All possible input values
- B) All possible output values
- C) The x-intercept

D) The slope of the line

3. For the function  $f(x) = x + 3$ , what is the domain?

A) Only positive numbers

B) Only negative numbers

C) All real numbers

D) Only whole numbers

4. Which set represents the domain of  $\{(1,4), (2,5), (3,6), (4,7)\}$ ?

A)  $\{4, 5, 6, 7\}$

B)  $\{1, 2, 3, 4\}$

C)  $\{1, 2, 3, 4, 5, 6, 7\}$

D)  $\{4, 6\}$

5. Which set represents the range of  $\{(1,4), (2,5), (3,6), (4,7)\}$ ?

A)  $\{1, 2, 3, 4\}$

B)  $\{4, 5, 6, 7\}$

C)  $\{1, 2, 3, 4, 5, 6, 7\}$

D)  $\{1, 7\}$

6. A function shows the temperature throughout a day. What would be a reasonable domain?

A)  $0 \leq x \leq 24$  (hours)

B)  $-100 \leq x \leq 100$  (temperature)

C) All negative numbers

D) Only even numbers

7. For  $f(x) = 2x$ , if the domain is  $\{1, 2, 3\}$ , what is the range?

A)  $\{1, 2, 3\}$

B)  $\{2, 4, 6\}$

C)  $\{3, 4, 5\}$

D)  $\{0, 2, 4\}$

8. What is the domain of a function that shows the cost of buying  $x$  movie tickets?

A) All real numbers

B) Only negative numbers

C) Non-negative whole numbers

D) Only numbers between 0 and 1

9. If a function has domain  $\{-2, 0, 2, 4\}$  and rule  $f(x) = x + 1$ , what is the range?

A)  $\{-2, 0, 2, 4\}$

B)  $\{-1, 1, 3, 5\}$

C)  $\{-3, -1, 1, 3\}$

D)  $\{-1, 0, 1, 2\}$

10. In context, if  $f(t)$  represents a plant's height after  $t$  days, what does the domain represent?

A) All possible heights

B) All possible days

C) The tallest the plant can grow

D) The age of the plant