

## Relations and Functions Worksheet

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

Grade & Section: \_\_\_\_\_

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

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### I. Multiple Choice (Write the letter of the correct answer.)

\_\_\_ 1. Which of the following is **not** a function?

- A.  $\{(1, 2), (2, 3), (3, 4)\}$
- B.  $\{(a, 1), (b, 2), (c, 3)\}$
- C.  $\{(5, 1), (5, 2), (5, 3)\}$
- D.  $\{(0, 3), (2, 3), (4, 5)\}$

\_\_\_ 2. The set of all first elements in a relation is called:

- A. Range
- B. Domain
- C. Output
- D. Codomain

\_\_\_ 3. A function assigns \_\_\_\_\_ output(s) for each input.

- A. two
- B. many
- C. exactly one
- D. any number of

\_\_\_ 4. What is the **range** of the relation  $\{(2,4), (3,5), (4,6)\}$ ?

- A.  $\{2, 3, 4\}$
- B.  $\{4, 5, 6\}$
- C.  $\{3, 4, 5\}$
- D.  $\{2, 4, 6\}$

\_\_\_ 5. What do you call the set of all second elements in a relation?

- A. Domain
- B. Input
- C. Output
- D. Co-input



### II. Identification

Write the correct answer on the blank provided.

- \_\_\_ 1. A relation in which no x-value is repeated.
- \_\_\_ 2. A visual method to determine if a graph is a function.
- \_\_\_ 3. The set of ordered pairs.
- \_\_\_ 4. The value you input into a function.
- \_\_\_ 5. The result or output of a function.

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### III. Matching Type

Match **Column A** with the correct term in **Column B**. Write the letter of the answer.

#### **Column A**

1. Domain
2. Function
3. Range
4. Ordered Pair
5. Equation

#### **Column B**

- A.  $y = 2x + 3$
- B.  $\{1, 2, 3, 4\}$  (set of x-values)
- C. A rule that assigns exactly one output
- D.  $\{5, 6, 7, 8\}$  (set of y-values)
- E.  $(x, y)$

### IV. Word Bank

Complete the sentences by choosing the correct word from the **Word Bank** below.

#### **Word Bank:**

domain    range    function    relation    mapping

1. A \_\_\_\_\_ is a set of ordered pairs.
2. The set of inputs is called the \_\_\_\_\_.
3. A \_\_\_\_\_ pairs each input with only one output.
4. A \_\_\_\_\_ diagram helps illustrate how elements of the domain relate to the range.
5. The set of all outputs is called the \_\_\_\_\_.