Worksheet 1: Function Basics

Name: _____   Date: _____

1. What is a function?

A) A rule that assigns exactly one output to each input

B) A rule that can assign multiple outputs to one input

C) Any equation with x and y

D) A graph that goes up and down

2. Which notation represents "f of 3"?

A) f × 3

B) f + 3

C) f(3)

D) 3f

3. If f(x) = 2x + 1, what is f(4)?

A) 7

B) 8

C) 9

D) 10

4. Which set of ordered pairs represents a function?

A) {(1,2), (2,3), (1,4), (3,5)}

B) {(1,2), (2,3), (3,4), (4,5)}

C) {(1,2), (1,3), (2,4), (2,5)}

D) {(1,2), (2,2), (1,3), (3,4)}

5. If g(x) = x - 5, what is g(8)?

A) 3

B) 13

C) -3

D) 5

6. In function notation f(x), what does x represent?

A) The output

B) The function name

C) The input

D) The equation

7. If h(x) = 3x, what is h(0)?

A) 3

B) 0

C) -3

D) Undefined

8. Which statement is true about functions?

A) Every input must have multiple outputs

B) Every input has exactly one output

C) Outputs can repeat, but inputs cannot

D) Functions always increase

9. If $f(x) = x^2 + 2$, what is f(3)?

A) 9

B) 11

C) 7

D) 5

10. In the equation y = f(x), what does y represent?

A) The input

B) The function

C) The output

D) The variable