

Name \_\_\_\_\_

## Unraveling Equations: Understanding Differential Equations

### Multiple Choice Questions

1. What is a key component of a differential equation?
  - A) The sum of two numbers
  - B) The relationship between a function and its derivatives
  - C) The value of pi ( $\pi$ )
  - D) The result of multiplication
  
2. What does the dependent variable represent in a differential equation?
  - A) The variable with respect to which the dependent variable changes
  - B) The unknown function
  - C) The derivative of the function
  - D) The constant value
  
3. What type of equations describe how quantities change over time or space?
  - A) Algebraic equations
  - B) Geometric equations
  - C) Trigonometric equations
  - D) Differential equations
  
4. What is an example of a dependent variable in a differential equation?
  - A) Multiplication
  - B) Addition
  - C) Temperature
  - D) Division
  
5. In which field are differential equations used to model economic variables?
  - A) Economics
  - B) Biology
  - C) Chemistry
  - D) Astronomy

