

Name \_\_\_\_\_

## Unraveling Number Mysteries: The Fascinating World of Number Theory

### Multiple Choice Questions

1. What is number theory?
  - a) The study of shapes and sizes
  - b) The study of chemical reactions
  - c) The study of weather patterns
  - d) The study of integers and their relationships
  
2. What are prime numbers?
  - a) Numbers that can be divided by themselves and 1
  - b) Numbers with decimal points
  - c) Numbers divisible by 2
  - d) Numbers divisible by 10
  
3. What is factorization?
  - a) The process of adding numbers together
  - b) The process of breaking down a number into its prime factors
  - c) The process of finding the average of a set of numbers
  - d) The process of finding the square root of a number
  
4. Why are prime numbers important in cryptography?
  - a) They make encryption algorithms more secure
  - b) They help scientists predict the weather
  - c) They are used to calculate interest rates
  - d) They determine the color of stars
  
5. What practical applications does number theory have?
  - a) Solving crossword puzzles
  - b) Writing poetry
  - c) Advancing scientific knowledge and securing information
  - d) Baking cookies

