Name _____

Cracking the Code: Exploring the Power of Factoring in Mathematics

Multiple Choice Questions

1. What is factoring?

a) Breaking down a mathematical expression into simpler components

b) Adding numbers together

c) Multiplying numbers together

d) Subtracting numbers from each other

2. In which field is factoring commonly used?

a) Medicine

b) Finance

c) Cooking

d) Painting

3. How does factoring contribute to cryptography?

a) By encrypting messages

b) By decrypting messages

c) By simplifying equations

d) By optimizing designs

4. What classic example illustrates the importance of factoring in algebraic expressions?

a) Factoring large numbers into their prime factors

b) Factoring $(x + y)(x - y)$

c) Factoring equations to calculate interest rates

d) Factoring expressions to encrypt messages

5. What role does factoring play in engineering?

a) Simplifying equations that describe physical phenomena

b) Encrypting and decrypting messages

c) Calculating loan payments

d) Analyzing market trends