

Name _____

Cracking the Code: Exploring the Power of Factoring in Mathematics

Open-Ended Response Answer Key

1. Yes, factoring could be used to simplify equations describing structural loads and forces in bridge design.
2. Factoring helps simplify complex financial equations used in calculating interest rates, loan payments, and investment returns, making it easier for financial analysts to understand and predict financial outcomes.
3. Factoring large numbers into their prime factors forms the basis of many encryption algorithms, ensuring the confidentiality and integrity of sensitive information transmitted over digital networks.
4. Factoring breaks down complex expressions into simpler components, revealing patterns and relationships between variables, enabling us to manipulate and solve them to address real-world problems and unlock new possibilities.

