

Name _____

Unlocking the Secrets of Perfect Numbers and Mersenne Primes

Open-Ended Response Answer Key

1. Perfect numbers and Mersenne primes have played a significant role in the development of number theory, inspiring mathematicians throughout history to explore the nature of prime numbers and their relationships.
2. Possible applications of perfect numbers and Mersenne primes include cryptography, where prime numbers are used in encryption algorithms, and computer science, where they are utilized in optimization and computational methods.
3. Ongoing research on perfect numbers and Mersenne primes continues to uncover new insights and connections within the realm of number theory, contributing to our understanding of fundamental mathematical concepts.
4. Perfect numbers and Mersenne primes have sparked curiosity and fascination among mathematicians and enthusiasts, encouraging further exploration and discovery in the field of mathematics.

