

Name _____

Divisibility Detective: Cracking the Code of Divisibility Rules

Open-Ended Response Answer Key

1. Possible answers may include: Divisibility rules for 9 (if the sum of its digits is divisible by 9), divisibility rules for 8 (if the number formed by its last three digits is divisible by 8), and divisibility rules for 10 (if its last digit is 0).
2. Understanding divisibility rules is important in mathematics because it helps simplify calculations, identify patterns in numbers, and streamline problem-solving processes.
3. Divisibility rules can help simplify mathematical calculations by providing quick methods to determine if one number is divisible by another, reducing the need for complex division operations.
4. Strategies to determine if a large number is divisible by another number may include applying multiple divisibility rules sequentially, breaking down the large number into smaller components, or using mental math techniques to identify factors.

