Even and Odd Numbers

An even number is any integer that is divisible by 2. This means that when an even number is divided by 2, there is no remainder. Even numbers always end in 0, 2, 4, 6, or 8.

Examples of even numbers:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, and so on.

What are Odd Numbers?

An odd number is any integer that is not divisible by 2. When an odd number is divided by 2, there is always a remainder of 1. Odd numbers always end in 1, 3, 5, 7, or 9.

Examples of odd numbers:

1, 3, 5, 7, 9, 11, 13, 15, 17, 19, and so on.

How to Identify Even and Odd Numbers?

Even numbers end in 0, 2, 4, 6, or 8.

Odd numbers end in 1, 3, 5, 7, or 9.

Properties of Even and Odd Numbers

Even + Even = Even: The sum of two even numbers is always even.

Example: 4 + 6 = 10 (even)

Odd + Odd = Even: The sum of two odd numbers is always even.

Example: 3 + 5 = 8 (even)

Even + Odd = Odd: The sum of an even number and an odd number is always odd.

Example: 4 + 5 = 9 (odd)

Even × **Even** = **Even**: The product of two even numbers is always even.

Example: 4 × 6 = 24 (even)

Odd × **Odd** = **Odd**: The product of two odd numbers is always odd.

Example: 3 × 5 = 15 (odd)

Even × **Odd** = **Even**: The product of an even number and an odd number is always even.

Example: 4 × 5 = 20 (even)

Example 1

Question: Is 28 an even or odd number?

Solution: 28 ends in 8, which is an even number. Therefore, 28 is an even number.

Answer: 28 is an even number.

Example 2

Question: Is 37 an even or odd number?

Solution: 37 ends in 7, which is an odd number. Therefore, 37 is an odd number.

Answer: 37 is an odd number.

Summary Points

- Even numbers are divisible by 2 and end in 0, 2, 4, 6, or 8.
- Odd numbers are not divisible by 2 and end in 1, 3, 5, 7, or 9.
- Even + Even = Even and Odd + Odd = Even.
- Even × Odd = Even and Odd × Odd = Odd.

Understanding even and odd numbers helps in simplifying calculations and identifying patterns in mathematics.