# **Roman Numerals**

Roman numerals are a system of numbers that originated in ancient Rome. They use combinations of letters from the Latin alphabet (I, V, X, L, C, D, M) to represent values.

#### **Basic Roman Numerals**

Here are the basic Roman numerals and their values:

Roman Numeral	Value
I	1
V	5
Х	10
L	50
С	100
D	500
М	1,000

# **Rules for Roman Numerals**

**Repetition Rule:** Some Roman numerals can be repeated to show addition, but no numeral is repeated more than three times.

**Example:** III = 3, XXX = 30

Addition Rule: If a smaller numeral is placed after a larger numeral, add them.

**Example:** VI = 5 + 1 = 6

**Subtraction Rule:** If a smaller numeral is placed before a larger numeral, subtract the smaller from the larger.

**Example:** IV = 5 - 1 = 4

No zero in Roman numerals: Roman numerals do not use zero.

# **Properties of Roman Numerals**

i. Roman numerals are not place value-based like our standard number system.

- ii. Roman numerals do not have a symbol for zero.
- iii. Roman numerals can represent numbers in an additive or subtractive manner.

iv. The numerals I, X, and C can be repeated up to 3 times, while V, L, and D are never repeated.

# Example 1

**Question:** Write the number 39 in Roman numerals.

# Solution:

39 can be broken into:

30 = XXX

9 = IX

So, 39 = XXXIX.

Answer: 39 = XXXIX

## Example 2

**Question:** Write the number 102 in Roman numerals.

## Solution:

102 can be broken into:

100 = C

2 = II

So, 102 = CII.

Answer: 102 = CII

# **Summary Points**

- Roman numerals are a system of numbers based on letters from the Latin alphabet.
- The repetition rule, addition rule, and subtraction rule are key to understanding Roman numerals.
- Roman numerals do not use zero and can be written by combining different symbols.
- Understanding Roman numerals helps in reading and writing ancient and modern references, like clock faces and book chapters.