

## Roman Numerals

### Roman Numerals

Roman Numerals are a system of writing numbers that was used in ancient Rome. Instead of digits (like 1, 2, 3), Roman numerals use letters from the English alphabet.

#### Basic Roman Numerals:

Roman Numeral	Hindu-Arabic Number
I	1
V	5
X	10
L	50
C	100
D	500
M	1000

#### Rules for Writing Roman Numerals:

##### i. Repetition Rule:

- I, X, C can be repeated up to 3 times.
- Example: III = 3, XXX = 30
- V, L, D are never repeated.

##### ii. Addition Rule:

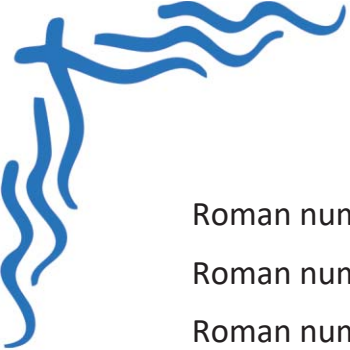
- If a smaller or same numeral is placed after a larger numeral, add them.
- Example: VI = 5 + 1 = 6

##### iii. Subtraction Rule:

- If a smaller numeral is placed before a larger numeral, subtract the smaller.
- Example: IV = 5 – 1 = 4

#### Properties of Roman Numerals:

Roman numerals do not use zero (0).



Roman numerals are written using capital letters.

Roman numerals follow fixed rules for addition and subtraction.

Roman numerals are mostly used on clocks, books, events, and chapter numbers.

**Example 1:**

**Question:** Write the Roman numeral for 39.

**Solution:**

**Break the number:**

$$30 = XXX$$

$$9 = IX$$

$$\text{So, } 39 = XXXIX$$

**Answer:** XXXIX

**Example 2:**

**Question:** Write the Hindu-Arabic number for XLII.

**Solution:**

$$XL = 50 - 10 = 40$$

$$II = 2$$

$$\text{So, } XLII = 40 + 2 = 42$$

**Answer:** 42

**Summary Points:**

- Roman numerals are made using letters: I, V, X, L, C, D, M
- Use repetition, addition, and subtraction rules to form numbers
- Commonly used in clocks, outlines, chapters, and ancient texts
- Roman numerals do not use zero and are written in capital letters