

SESSION : 1
CLASS : IV
SUBJECT : MATHEMATICS
CHAPTER NUMBER : 3
CHAPTER NAME : ROMAN NUMERALS
SUBTOPIC : BASICS OF ROMAN NUMERALS

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

- **Enable the students to understand the basics of Roman numerals and its uses.**

ROMAN NUMERALS

The roman numeral system is the most ancient and a popular form of writing numbers. It was developed by the Romans thousands of years ago.

In this system, **7** letters of the alphabet are used to represent the numbers. The **7** letters along with their corresponding numeric value are given in the table below.

ROMAN NUMERALS

LETTER	NUMERIC VALUE
I	1
V	5
X	10
L	50
C	100
D	500
M	1000

Remember :

There is no letter to represent '**zero**' in the roman number system.



ROMAN NUMERALS

Nowadays, roman numbers are used to number the faces of clocks, to list important topics in outlines, etc.

All the numbers are written using either a single letter or a combination of different letters.

Let us now learn how to represent numbers **1** to **30** using the roman numeral system. You will learn more about the remaining letters and their use in higher classes.

ROMAN NUMERALS

Rules For Reading Roman Numerals

Rules – 1 :

If a symbol is repeated more than one time, then we add its numeric value that many times.

ROMAN NUMERALS

Rules For Reading Roman Numerals

Example :

$$\text{II} = \quad \mathbf{1 + 1} = \quad \mathbf{2}$$

$$\text{III} = \quad \mathbf{1 + 1 + 1} = \quad \mathbf{3}$$

$$\text{XX} = \quad \mathbf{10 + 10} = \quad \mathbf{20}$$

$$\text{XXX} = \quad \mathbf{10 + 10 + 10} = \quad \mathbf{30}$$

-> Only letters **I**, **X**, **C** and **M** can be repeated. Letters **V**, **L** and **D** are never repeated. **10** is not written as **VV**. To represent **10**, we write **X**.

ROMAN NUMERALS

Rules For Reading Roman Numerals

-> A symbol cannot be repeated more than **3 times** in a row.

-> For representing **3**, **III** is acceptable. But for writing **4**, we will not use **IIII**. Similarly, **40** cannot be written as **XXXX**.

ROMAN NUMERALS

Rules For Reading Roman Numerals

Rules – 2 :

When a letter having smaller value is written to the right of letter having greater value, add the numeric value of the smaller letter to the numeric value of the greater letter.

ROMAN NUMERALS

Rules For Reading Roman Numerals

Example :

$$\text{VI} = \quad \text{V} + \text{I} = \quad 5 + 1 = \quad 6$$

$$\text{XI} = \quad \text{X} + \text{I} = \quad 10 + 1 = \quad 11$$

$$\text{LI} = \quad \text{L} + \text{I} = \quad 50 + 1 = \quad 51$$

$$\text{CI} = \quad \text{C} + \text{I} = \quad 100 + 1 = \quad 101$$

$$\text{XV} = \quad \text{X} + \text{V} = \quad 10 + 5 = \quad 15$$

$$\text{XXV} = \quad \text{X} + \text{X} + \text{V} = \quad 10 + 10 + 5 = \quad 25$$

$$\text{XXXV} = \quad \text{X} + \text{X} + \text{X} + \text{V} = \quad 10 + 10 + 10 + 5 = \quad 35$$

$$\text{LX} = \quad \text{L} + \text{X} = \quad 50 + 10 = \quad 60$$

$$\text{LXV} = \quad \text{L} + \text{X} + \text{V} = \quad 50 + 10 + 5 = \quad 65$$

ROMAN NUMERALS

Rules For Reading Roman Numerals

Rules – 3 :

When a letter having smaller value is written to the left of a letter having greater value, subtract the numeric value of the smaller letter from that of the greater letter.

ROMAN NUMERALS

Rules For Reading Roman Numerals

Example :

$$\text{IV} = \quad 5 - 1 = \quad 4$$

$$\text{IX} = \quad 10 - 1 = \quad 9$$

$$\text{XL} = \quad 50 - 10 = \quad 40$$

LEARNING OUTCOME:

Students are able to understand about the basics of Roman numerals.

THANKING YOU
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