(Olympiad Champs Notes)

Roman Numerals

Historical Preview

❖ Roman numerals originally came from Etruscan numerals which were changed. The Roman numerals came in to use from 4th century B.C.

LEARNING OBJECTIVES

This lesson will help you to:—

❖ understand Roman numbers.

❖ learn rule of Roman numerals.

Historical preview

❖ Roman numerals originally came from Etruscan numerals which were changed. The Roman numerals came in to use from 4th century B.C.

QUICK CONCEPT REVIEW

We use numbers every day. When we get up in the morning we see the clock and read the time with numbers. We wait for our bus number to go to school. We go to our class say class 5 or 6. We learn mathematics in the school. We count money using numbers only.

Do you know, what are the numbers (0 1 2 3 4 5 6 7 8 9) which we use everywhere called? These are the Arabia.

But apart from these numbers, we use some symbols too which represent mathematical values. This numerals are the Roman numerals.

Roman numerical system uses combination of letters from Latin alphabets to present mathematical numbers.

In this chapter we shall learn about the Roman numerals.

In Roman numeral system, system, symbols are used to represent the numbers.

Rules for Roman numerals:

I. The first three numbers (1, 2. 3) are represented as → I, II and III.

II. The symbol for 5 is V.

III. One symbol cannot be used more than thrice continuously. That is why we do not write 4 as IIII this is wrong.

IV. If a letter is placed before the letter of greater value then subtract if from the greater number. For example, I represents 1 and V represents 5, so when IV is written this means 5 – 1 = 4. So IV represents 4.

V. If one or more different letters are there after a letter of greater value. Then add them all.
For example for ten is X.

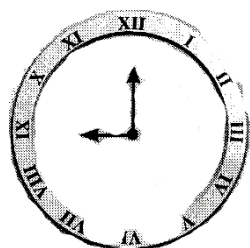**VI.** The symbol for ten is X.

VII. If a letter repeats itself, then add the letter that many times. For example XXX = 10 + 10 + 10 =30

VIII. Only one number can be subtracted from one number. For example: It will be wrong to write 13 = IIXV (15 – 1 – 1). 13 will be written as XIII.

IX. A bar or line on a number increases its value by 1000 times. For example: XV = 15 and $\overline{XV}$ = 10000 + 5000 = 15000.

Real - life Examples

❖ In some watches or clocks you can see the Roman numerals on the dial.

❖ Roman numerals are also used in the names of monarchs and popes. For example : Elizabeth

❖ You write your standard in the school bin Roman numerals. Like you study in class V.

Here are a few examples of some Roman numerals:

I.   67 = LXVII

II.   545 = DXLV

III. 303 = CCCIII

IV. 98 = XCVIII

Here are a few Table of Roman Numbers for Numbers 1-20

No.	Roman Representation	No.	Roman Representation
1	I	11	XI
2	II	12	XII
3	III	13	XIII

4	IV	14	XIV
5	V	15	XV
6	VI	16	XVI
7	VII	17	XVII
8	VIII	18	XVIII
9	IX	19	XIX
10	X	20	XX

Some Other Important Roman Representations
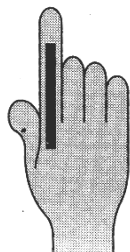
L	C	D	M
50	100	500	1000

EXAMPLE:

CM (1000-100) = 900

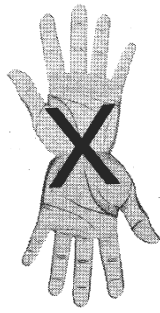Here are some easy ways to remember some of the Roman representations:

❖ The roman numeral I (One) resembles with one finger of our hands.

❖ The roman numeral V (Five) can be remembered as →there are five fingers in our hand and the shape between any two fingers of our hand resembles the shape of V.

❖ If we place our two hands both in opposite direction but touching at one point we have ten fingers and this resembles with shape of roman numeral X (Ten).

❖ The symbol 'C' represents value of 100, so half of 100 will be 50.

If we do half of symbol C we get a shape which resembles the letter representing 50 which is L

So now you are able to recognize and use the roman numerals.