



Roman Numerals

Roman numerals are a number system used in ancient Rome. Instead of digits like 0-9, Roman numerals use letters from the Latin alphabet to represent numbers. The main symbols in Roman numerals are:

- I = 1
- V = 5
- X = 10
- L = 50
- C = 100
- D = 500
- M = 1,000

Roman numerals are created by combining these symbols. The values are added or subtracted based on the position of the letters.

Rules for Roman Numerals

- When smaller numerals appear before larger numerals, subtract the smaller value.

Example: IV = 4 (5 - 1)

- When smaller numerals appear after larger numerals, add the smaller value.

Example: VI = 6 (5 + 1)

- Repeating a numeral means adding its value.

Example: III = 3 (1 + 1 + 1)

The numeral I can be repeated up to 3 times, but other numerals like V, X, L, C, D, and M are not repeated more than once.

Properties of Roman Numerals

- Roman numerals do not have a symbol for zero.
- The order of the numerals affects the number's value (subtractive or additive).
- Roman numerals are still used today in clocks, dates, and other areas, though they are not commonly used for everyday arithmetic.



Example 1

Question: Convert the Roman numeral VIII to a number.

Solution:

- $V = 5$
- $III = 3 (1 + 1 + 1)$

So, $VIII = 5 + 3 = 8$.

Answer: $VIII = 8$.

Example 2

Question: Convert the Roman numeral XII to a number.

Solution:

- $X = 10$
- $II = 2 (1 + 1)$

So, $XII = 10 + 2 = 12$.

Answer: $XII = 12$.

Summary Points

- Roman numerals use letters from the alphabet to represent numbers.
- Smaller numerals placed before larger numerals are subtracted, while placed after larger numerals are added.
- Roman numerals are useful for representing certain types of numbers and are still seen today in clocks and dates.
- The rules of Roman numerals help us understand how to read and write numbers in a different way.