

Roman numerals are a numeral system that originated in ancient Rome and remained the usual way of writing numbers throughout Europe well into the Late Middle Ages. Numbers are written with combinations of letters from the Latin alphabet, each with a fixed integer value. The use of Roman numerals continued long after the decline of the Roman Empire. From the 14th century on, Roman numerals began to be replaced by Arabic numerals; however, this process was gradual, and the use of Roman numerals persisted in various places, including on clock faces. The notations IV and IX can be read as "one less than five" and "one less than ten", although there is a tradition favoring the representation of "4" as "IIII" on Roman numeral clocks. Other common uses include year numbers on monuments and buildings and copyright dates on the title screens of films and television programs. MCM, signifying "a thousand, and a hundred less than another thousand", means 1900, so 1912 is written MCMXII. For the years of the current (21st) century, MM indicates 2000; this year is MMXXV (2025).

Roman numerals use different symbols for each power of ten, and there is no zero symbol, in contrast with the place value notation of Arabic numerals (in which place-keeping zeros enable the same digit to represent different powers of ten).

This allows some flexibility in notation, and there has never been an official or universally accepted standard for Roman numerals. Usage varied greatly in ancient Rome and became thoroughly chaotic in medieval times. The more recent restoration of a largely "classical" notation has gained popularity among some, while variant forms are used by some modern writers as seeking more "flexibility". Roman numerals may be considered legally binding expressions of a number, as in U.S. Copyright law (where an "incorrect" or ambiguous numeral may invalidate a copyright claim or affect the termination date of the copyright period). The numerals for 4 (IV) and 9 (IX) are written using subtractive notation, where the smaller symbol (I) is subtracted from the larger one (V, or X), thus avoiding the clumsier IIII and VIIII. Subtractive notation is also used for 40 (XL), 90 (XC), 400 (CD) and 900 (CM). These are the only subtractive forms in standard use.

Roman numerals are a numeral system that originated in ancient Rome. While subtractive notation for numbers like 4, 40, and 400 (IV, XL, and CD) has been common since Roman times, additive forms such as IIII, XXXX, and CCCC also continued to be used frequently, even in compound numbers like 24 (XXIIII), 74 (LXXIIII), and 490 (CCCCLXXXX). Additive forms like VIIII, LXXXX, and DCCCC for 9, 90, and 900 were also used, although less often. Both additive and subtractive notation could appear in the same document. For example,

on the gates of the Colosseum, IIII was used for 4, while XL was used for 40, so gate 44 appears as XLIIII. On tombstones and other inscriptions, sometimes 5 and 50 were written as IIII and XXXXX instead of V and L, and even combinations like IIIIII and XXXXXX existed. Modern clocks often use IIII for 4 o'clock but IX for 9 o'clock. This pattern appears on early clocks like the Wells Cathedral clock, but not universally — Big Ben in London, for example, uses IV.

In some early 20th-century monuments, alternate Roman numeral forms were used for years. Admiralty Arch in London displays 1910 as MDCCCCX instead of the more common MCMX. The Saint Louis Art Museum shows 1903 as MDCDIII. There are historical examples of unusual subtractive forms like IIX for 8 and XIIX for 18, particularly on Roman military artifacts. Other variants include IIIX for 17 and IC for 99. These may have reflected spoken Latin patterns, such as “two from twenty” for 18. Some subtractive notations also appeared in Roman calendars like the Fasti. Microsoft Excel’s ROMAN function allows different subtraction styles when rendering Roman numerals. For example, the number 499 can be rendered in various formats like LDVLIV or ID. Other additive and unusual variants also existed, including representations like XVIXIII for 1613. In some cases, numerals were used in non-standard ways or were subject to misinterpretation by stonecutters or scribes unfamiliar with the system. Some combinations, like VXL for 45, may have resulted from errors or confusion. Roman numerals can also be confused with common Latin letters or symbols. Examples include XXX and XL having alternative meanings, or IXL being interpreted as “I excel.” Roman numerals do not include a symbol for zero. In medieval times, “nulla” or “N” was used to indicate zero, such as in apothecaries’ systems.

Fractions in Roman numerals were based on a duodecimal (base-12) system. The basic Roman fraction symbol was S for 1/2. Smaller fractions were indicated using dots, each representing a twelfth (uncia). For example, three dots would mean 1/4. Symbols were added to S to indicate values like 7/12 or 9/12. Names were assigned to each of these fractions, such as uncia, sextans, quadrans, triens, and so on. For large numbers, the apostrophes method was used: 500 was ID, and 1,000 was CIƆ. These could be encased in additional Cs or Js to multiply the value by ten or one hundred thousand. Symbols like ↅ, ↆ, and ↇ represented 5,000, 10,000, and 50,000 respectively. The vinculum (a line above a numeral) was another way to indicate multiplication by 1,000. For example, IV with a bar over it meant 4,000.

Roman numerals also appeared on buildings, inscriptions, and documents. Over time, more compact notations like “M” for 1,000 and “D” for 500 became standard. Some Medieval documents used lowercase Roman numerals and even substituted “j” for the last “i” in numerals like *ijj*. Additional symbols emerged in the Middle Ages, such as A for 5 or F for 40. Some were abbreviations, while others were simply substitutions. Roman numerals sometimes appeared with ordinal indicators or in hybrid forms for specific purposes.

By the 11th century, Arabic numerals had arrived in Europe, but Roman numerals remained common into the 14th and 15th centuries, even in business and accounting. Today, they’re still used in specific domains. These include monarch names (e.g., Elizabeth II), generational suffixes (e.g., William Howard Taft IV), movie sequels (e.g., *Rocky III*), book chapters, outlines, clock faces, Super Bowls, and other numbered events. Roman numerals also appear in science, law, and education — for example, denoting oxidation states in chemistry or graph quadrants in mathematics.

In music, Roman numerals identify movements, harmonies, and string positions. In pharmacy, N indicated zero and SS stood for 1/2. In photography, they denote exposure levels. In sports, they are used in team and league designations, such as “1st XV” for rugby or “3rd XI” for cricket. In different cultures, Roman numerals still appear in clocks, timetables, address numbers, and legislative references. In some Romance languages and Slavic countries, Roman numerals are used to denote centuries. Mixed Arabic-Roman formats also appear in dates, like “10.XI.1988” for 10 November 1988. Roman numerals remain visible across architecture, coins, clocks, documents, and design — carrying on a numeric tradition that originated over two thousand years ago.