# Roman Numerals

Roman numerals were developed so that the Romans could easily price different goods and services. Roman numbers were widely used throughout the Roman Empire in everyday life. Following the fall of the Roman Empire, numerals continued to be used throughout Europe up until the 1600's.

| | | |
|---|---|---|
| 1 = I | 8 = VIII | 60 = LX |
| 2 = II | 9 = IX | 70 = LXX |
| 3 = III | 10 = X | 80 = LXXX |
| 4 = IV | 20 = XX | 90 = XC |
| 5 = V | 30 = XXX | 100 = C |
| 6 = VI | 40 = XL | 500 = D |
| 7 = VII | 50 = L | 1000 = M |
| | | 2000 = MM |

Roman numerals are represented by seven different letters: I, V, X, L, C, D and M. Which represent the numbers 1, 5, 10, 50, 100, 500 and 1,000. These seven letters are used to make thousands of numbers. For example, the Roman numeral for two is written as 'II', just two one's added together. The numeral twelve is written as, XII, which is simply X + II. If we take this a step further; the number twenty-seven is written as XXVII, which when broken down looks like XX + V + II.

Roman numerals are usually written largest to smallest from left to right. However, this is not always the case. The Romans didn't like four of the same numerals written in a row, so they developed a system of subtraction.

The Roman numeral for three is written as 'III', however, the numeral for four is not 'IIII'. Instead we use the subtractive principle. The number four is written as 'IV', the numerals for one and five. Because the one is before the five we subtract it making four. The same principle applies to the number nine, which is written as 'IX'. There are six instances where subtraction is used:

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- o  I can be placed before V (5) and X (10) to make 4 and 9.
- o  X can be placed before L (50) and C (100) to make 40 and 90.
- o  C can be placed before D (500) and M (1000) to make 400 and 900.

The number 1994 is a great example of these rules. It is represented by the Roman numerals MCMXCIV. If we break it down then; M = 1,000, CM = 900, XC = 90 and IV = 4.

## Years and Dates

To write the year in Roman numerals we need to make larger numbers.

Years in the 21st century are quite simple. First, we start off with MM (1000 + 1000) and then we add on the appropriate amount. So, if we want 2020 in numerals we start with MM (2000) and add XX (20) to make MMXX.

Years from the 20th century are simple as well. We start off with the Roman numerals for 1900 (MCM) and add on the appropriate amount from here. So, for example, 1985 would be written as MCM (1900) + LXXX (80) + V (5) = MCMLXXXV.

| 2000 | MM | 2010 | MMX | 2020 | MMXX |
|------|------|------|--------|------|---------|
| 2001 | MMI | 2011 | MMXI | 2021 | MMXXI |
| 2002 | MMII | 2012 | MMXII | 2022 | MMXXII |
| 2003 | MMIII | 2013 | MMXIII | 2023 | MMXXIII |
| 2004 | MMIV | 2014 | MMXIV | 2024 | MMXXIV |
| 2005 | MMV | 2015 | MMXV | 2025 | MMXXV |
| 2006 | MMVI | 2016 | MMXVI | 2026 | MMXXVI |
| 2007 | MMVII | 2017 | MMXVII | 2027 | MMXXVII |
| 2008 | MMVIII | 2018 | MMXVIII | 2028 | MMXXVIII |
| 2009 | MMIX | 2019 | MMXIX | 2029 | MMXXIX |

## Modern Uses of Roman Numerals

Roman numerals can still be seen in the modern day, in fact they are all over the place!

I.      Roman numerals are used to refer to kings, queens, emperors and popes. For example; Henry VIII of England and Louis XVI of France.

II.     Many competitions such as the Olympic Games and the Super Bowl use numerals to represent how many times the event has been held. For example, the Olympic games in Tokyo (2020) will be the thirty-second time the event will be held and will be represented by the numerals XXXII.

III.    Numerals can often be found on buildings and monuments to signify the year of construction. For example, a building built in 2004 may have the numerals MMIV engraved on it.

IV.     Many clocks also use numerals to represent the hours.

Roman numerals can be found in many other places; the list goes on and on. It is used at the start of books to number pages, to label sections and sub-sections in legislation and contracts, to reference wars (WWI & WWII).

There were a number of counting systems in the ancient world prior to the creation of Roman numbers. For example, the Etruscans, who lived in central Italy before the Romans, developed their own numeral system with different symbols.

## Origin of Roman Numerals

Theory 1: A common suggested theory for the origin of the Roman numbers system is that the numerals represent hand signals. The numbers; one, two, three and four are signalled by the equivalent amount of fingers. The number five is represented by the thumb and fingers separated, making a 'V' shape. The numbers; six, seven, eight and nine are represented by one hand signalling a five and the other representing the number 1 through to 4. The number ten is represented by either crossing the thumbs or hands, signalling an 'X' shape.

Theory 2: The second theory suggests that Roman numerals originate from notches which would be etched onto tally sticks. Tally sticks had been used for hundreds of years previous to the Romans and were still used up until the 19th century by shepherds across Europe.
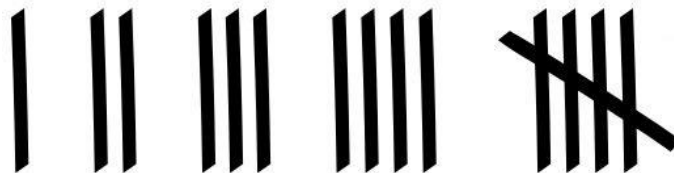
The numbers one, two, three and four were represented by the equivalent amount of vertical lines. The number five represented by an upside down 'V'. The number was represented by an 'X'. In order to make larger numbers they would use the same rules as numerals did.

For example; seven on a tally stick would look like: IIIIVII, when shortened it would look like VII, identical to Roman numbers. Just like the above example the number seventeen, in long form, would look like IIIIVIIIIXIIIIVII, however, this in short form would look like XVII, which is also identical to numerals.