

Can I work out Roman Numerals?

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

Step one:

Roman Numerals have no place value, so you need to create each digit of the number separately by partitioning. So:

$$\begin{aligned}1 \quad 2 \quad 4 \quad 9 &= 1000 = \text{M} \\ &200 = \text{CC} \\ &40 = \text{XL} \text{ (10 less than 50)} \\ &9 = \text{IX} \text{ (1 less than 10)}\end{aligned}$$

Step two:

There are some 'rules'. You cannot have more than 3 of the same numerals. So for the number 40 and the number 9, you need to do a 'subtraction'.

Here are some more examples:

$$6 = \text{VI} \text{ (5 + 1)}$$

$$8 = \text{VIII} \text{ (5 + 3)}$$

$$90 = \text{XC} \text{ (100 - 10)}$$

Step three:

Another 'rule' is that if a smaller numeral is in front of a larger numeral, we take this away. If the smaller numeral is after the larger numeral, we add (see examples above).

$$1 \quad 2 \quad 4 \quad 9 = \text{MCCXLIX}$$

Marvellous, Magnificent, Mind-blowing

Roman Numeral	Number
DCCXV	
MMXLV	
MXXII	
DXCVII	
DCLXI	
LXXXIX	
XXVI	
MMMDCX	
XLV	
CCLXVIII	
CDLX	
MCDV	
LXI	
MDXXVI	

Roman Numeral	Number
DCCXV	715
MMXLV	2045
MXXII	1022
DXCVII	597
DCLXI	661
LXXXIX	89
XXVI	26
MMMDCX	3610
XLV	45
CCLXVIII	268
CDLX	460
MCDV	1405
LXI	61
MDXXVI	1526