Roman Numerals

(This lesson is optional.)

In ancient Rome, people wrote numbers using letters such as I, V, X, L, C, and M.

These Roman numerals are still in use today in a few places, such as on clock faces, or to mark the year of monuments or the copyright year of movies.

For example, MMXII, signifies the year 2012.

Here are what the various letters mean.

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

Using I, X, and C more than once just means you add their values:

II	III	XX	XXX	CC
2	3	20	30	200

When a bigger symbol is followed by smaller ones, add the values.

VI	XI	LX	XXVI	DCXV
6	11	60	26	615

There are more rules, but let's practice these first.

1. Write the Roman numerals using normal numbers.

a.	b.	c.	d.
II	XV	XXXVIII	LXIII
VII	XXI	LIII	LXV
VIII	XXII	LVI	LXXX
XII	XXXV	LXI	LXXVII

e.	f.	g.	h.
CVII	CXVII	DCL	CCCXXII
CXX	CXXX	DCCXXX	DCCCLXVI

If a smaller unit comes *before* a bigger unit, you *subtract* the smaller from the bigger.

IV is 4	IX is 9	XL is 40	XC is 90
1 before 5	1 before 10	10 before 50	10 before 100
$5 - 1$	$10 - 1$	$50 - 10$	$100 - 10$

You can combine IV, IX , XL and XC symbols with others, and add their values:

XIV $= 14$	XXIX $= 29$	XLV $= 45$	XCIX $= 99$
10 and 4	20 and 9	40 and 5	90 and 9

Exceptions: For 49 don't use IL, but XLIX.   For 99, don't use IC, but XCIX.

2. Write the Roman numerals using normal numbers.

a. IV

b. XXIV

c. XXIX

d. XL

e. XLI

f. XLIX

g. XLIV

h. XCIII

i. LXXIV

j. LIX

k. LXXXV

l. LXXXIX

m. LIV

n. CCIX

o. XCIV

3. When Roman numerals are used in the names of monarchs (kings and queens) and of popes, they are read as ordinal numbers. For example, Henry V is read as "Henry the fifth".

Read aloud the names of these kings and queens.

Louis XIV

Charles IX

Henry VIII

Maria II

Joan III

Philip IV

4. This clock has been tampered with! Correct the errors in it.

5. Fill in the cross-number puzzle with Roman numerals.

Across:

a. 104
b. 150
c. 55
d. 99
e. 49
f. 93

Down:

a. 159
b. 300
c. 74
d. 35
g. 52

6. Write using Roman numerals.

a. 15 16 17	**b.** 42 43 44	**c.** 62 83 75
d. 91 69 99	**e.** 126 114 293	**f.** 547 678 798

Puzzle Corner

Add and subtract using Roman numerals. Write your answer as a Roman numeral. This is where the Roman system is not very efficient! Our number system that is based on place value works much better for calculations.

a. IV + VI

b. XX + LX

c. C − VI

d. XII + XVI

e. XL + LIX

f. XXXIX + L

g. LX − XXX

h. XC − XL

i. LXXIV − IV

j. LXXX − XXVI