

Working with Roman Numerals

Instead of using the 10 Indo-Arabic numerals to write numbers, like we do, the Romans used only 7 letters. With those 7 letters, they could make any number - except zero. If there was nothing to count, they didn't write anything down!

Roman Numerals	I	V	X	L	C	D	M
Indo-Arabic Numerals	1	5	10	50	100	500	1,000

Add-up Numerals

To make other numbers, the Romans simply stuck the numerals together.

When **adding**, they always put them in size-order, left to right, with the biggest numeral first.

e.g. XXIII = 23

Exercise 1:

What do these numerals stand for?

- a) XX _____
- b) XV _____
- c) LXX _____
- d) III _____
- e) MM _____
- f) VII _____
- g) XVII _____
- h) CLXI _____
- i) CCXXII _____
- j) MDCLXVI _____

Exercise 2:

Read the story and answer the questions. Write your answers in Roman numerals.

The master had invited XI guests to join him for dinner, and sent his slave to the market to buy food. He bought VI eggs, XXXVI dormice, XII sausages, III chickens, VII honey cakes, VI poppy-seed cakes, XIII plums and XXII apples.

- a) How many items did the slave buy at the market? _____
- b) How many dormice did he buy for each person? _____
- c) How many people would not have a poppy-seed cake? _____
- d) How many cakes did he buy all together? _____
- e) How many pieces of fruit did he buy? _____



Take-away Numerals

Sometimes, sticking numerals together can be a bit untidy. If we wrote the number 4 in the usual way it would be IIII. The Romans thought this was too long.

So, they came up with a clever solution. Usually, the numerals go in size order, left to right. But by putting a smaller numeral **before** a bigger one, it means you **subtract** its value from the bigger one.

e.g. IV = 4
IX = 9
XL = 90

But there is a rule. Subtraction can only happen if the two numerals are not separate by more than two places on the chart. So XC (90) is allowed, because those numerals are two places apart, but VC and IC are not.

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Exercise 3:

Complete the Roman Numerals up to 20.

I				V			VIII								XVI				XX
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Exercise 4:

What do these numerals stand for?

- a) IX _____
- b) XIV _____
- c) XIX _____
- d) CIV _____
- e) CIX _____
- f) CM _____
- g) XL _____
- h) XLIV _____
- i) LIX _____
- j) MDLXIX _____

Turn these into Roman numerals:

- a) 8 _____
- b) 24 _____
- c) 38 _____
- d) 40 _____
- e) 45 _____
- f) 109 _____
- g) 139 _____
- h) 522 _____
- i) 1,001 _____
- j) 999 _____

Exercise 5: