

Lesson 2 – Roman Numerals

NC Objective:

Read Roman Numerals to 100 and know that over time, the numeral system changed to include the concept of zero and place value

Resources needed:
Differentiated Sheets
Teaching Slides

Vocabulary:

Roman Numerals

Children have seen Roman Numerals on a clock face from year 3. They build on this knowledge and explore Roman Numerals to 100. They explore what is the same and different between the number systems and understand that there is no symbol for zero and so there aren't any place holders

Key questions:

Why is there no zero in Roman Numerals? What might it look like? Can you see any patterns? If 20 is XX, what might 200 be? How can you check that you have represented the Roman Numeral correctly? Can you use numbers you know, such as 10 and 100 to help you?

★ Working Towards

Complete the diagrams.

II	→ +1	→	
IV	→ +10	→	
VI	→ -1	→	
VIII	→ +10	→	
X	→ -1	→	
XII	→ +10	→	
XIV	→ +10	→	
XVI	→ -1	→	

★★ Working Within

Complete the diagrams.

XLVI	→ +10	→	
XIII	→ -1	→	
XXIX	→ -10	→	
LXXXII	→ +1	→	
XXXIII	→ -10	→	
XLII	→ +10	→	
LIV	→ +1	→	
LXVIII	→ -1	→	

★★★ Greater Depth

Complete the diagrams.

LXXVIII + V	→ +10	→	
	→ ×7	→	LVI
XXIX - VI	→ -10	→	
XLIV + XXI	→ +1	→	
	→ ×9	→	LXXXI
XIV - V	→ ×6	→	
	→ +1	→	XXIII + XLIII
C - XXIX	→ -1	→	

Children revisit 10 more and 10 less using Roman Numerals. Children on this sheet consolidate their recognition within 20.

Children revisit 10 more and 10 less using Roman Numerals. Children on this sheet consolidate their recognition within 100.

Children have a range of calculations to work out before working out 1/10 more or less. They also have missing parts.

Reasoning & Problem Solving

Solve the following calculation:

$C - X =$

How many other calculations, using Roman Numerals, can you write to get the same total?

Tia says:

$X = 10$, so if I am counting in tens in Roman Numerals, I keep on adding X.

Is Tia correct? Explain your answer.

Children have a simple calculation to work out and investigate counting in tens in Roman Numerals.

Solve the following calculation:

$LXXVI - X =$

How many other calculations, using Roman Numerals, can you write to get the same total?

Tia says:

In the five times table, all the numbers have a zero or a five. Therefore, in Roman Numerals all multiples of five have an V or X.

Is Tia correct?

Children have a subtraction calculation to work out and investigate counting in fives in Roman Numerals.

Solve the following calculation:

$XVI \times VI =$

How many other calculations, using Roman Numerals, can you write to get the same total?

Tia says:

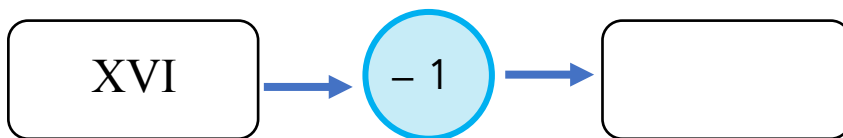
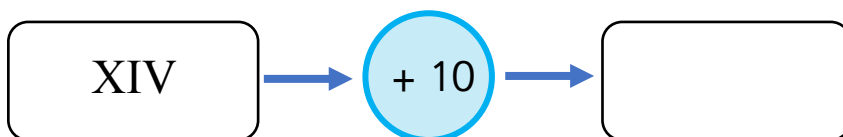
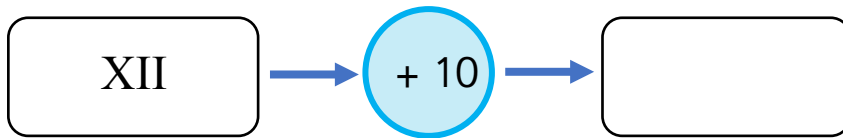
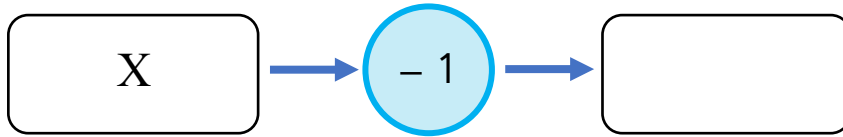
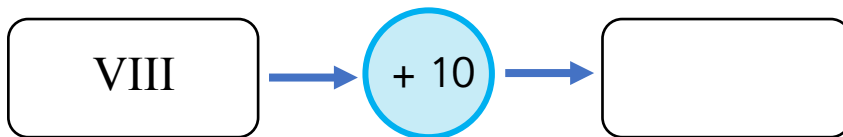
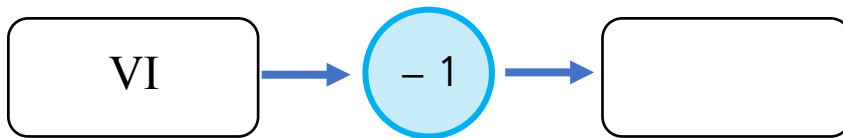
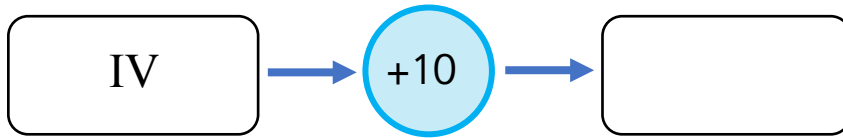
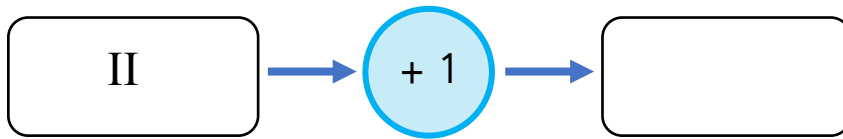
Can you explain a pattern in the 2 times tables in Roman Numerals?

What about the 5 times tables in Roman Numerals?

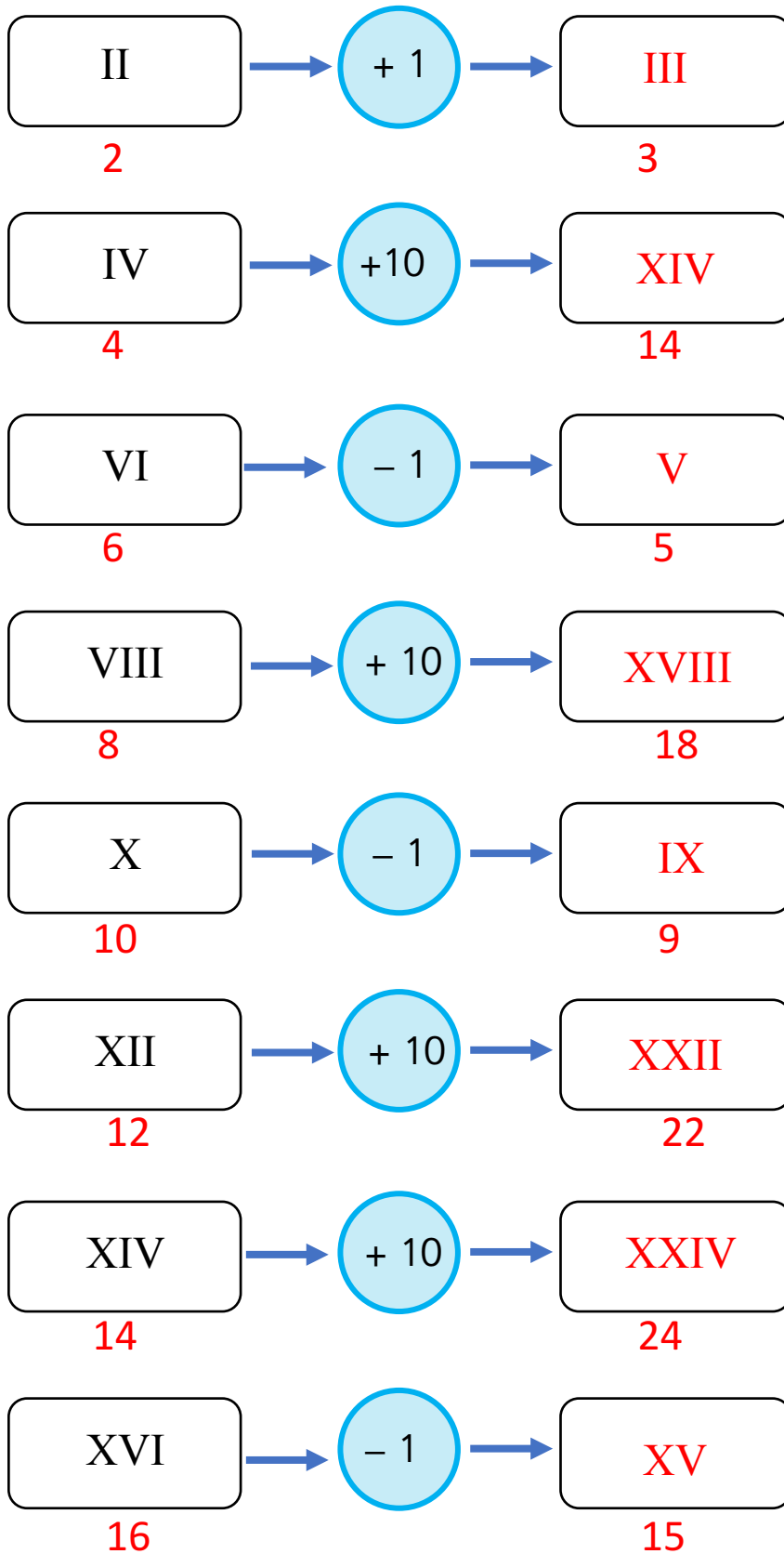
Convince me.

Children have a multiplication calculation to work out and investigate the two and five times tables in Roman Numerals.

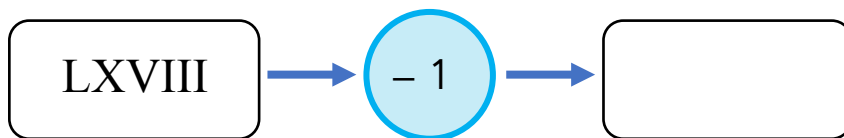
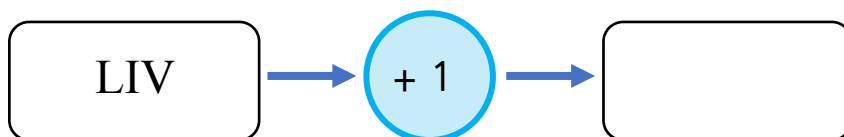
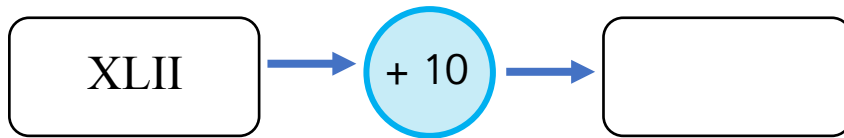
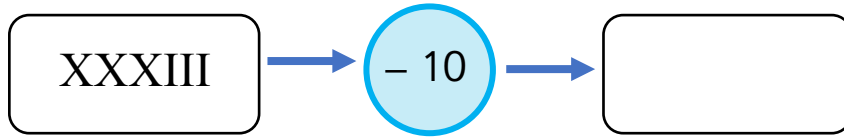
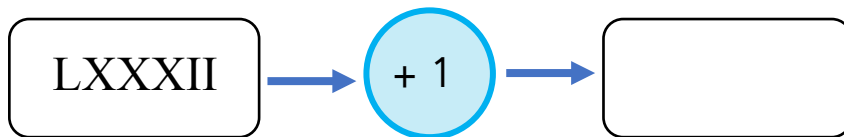
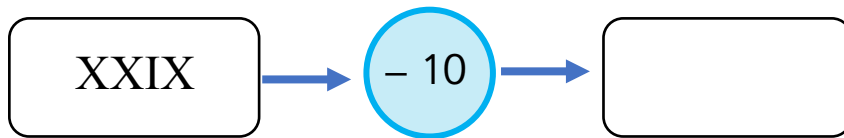
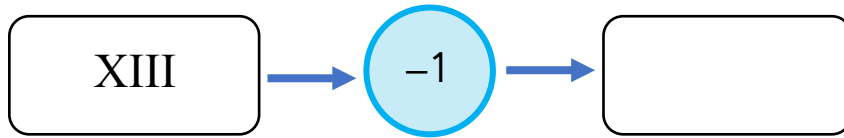
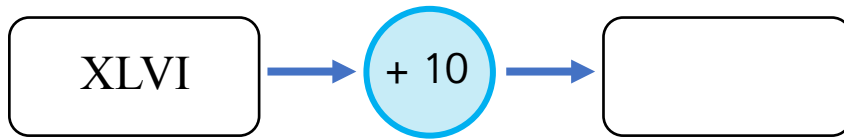
Complete the diagrams.



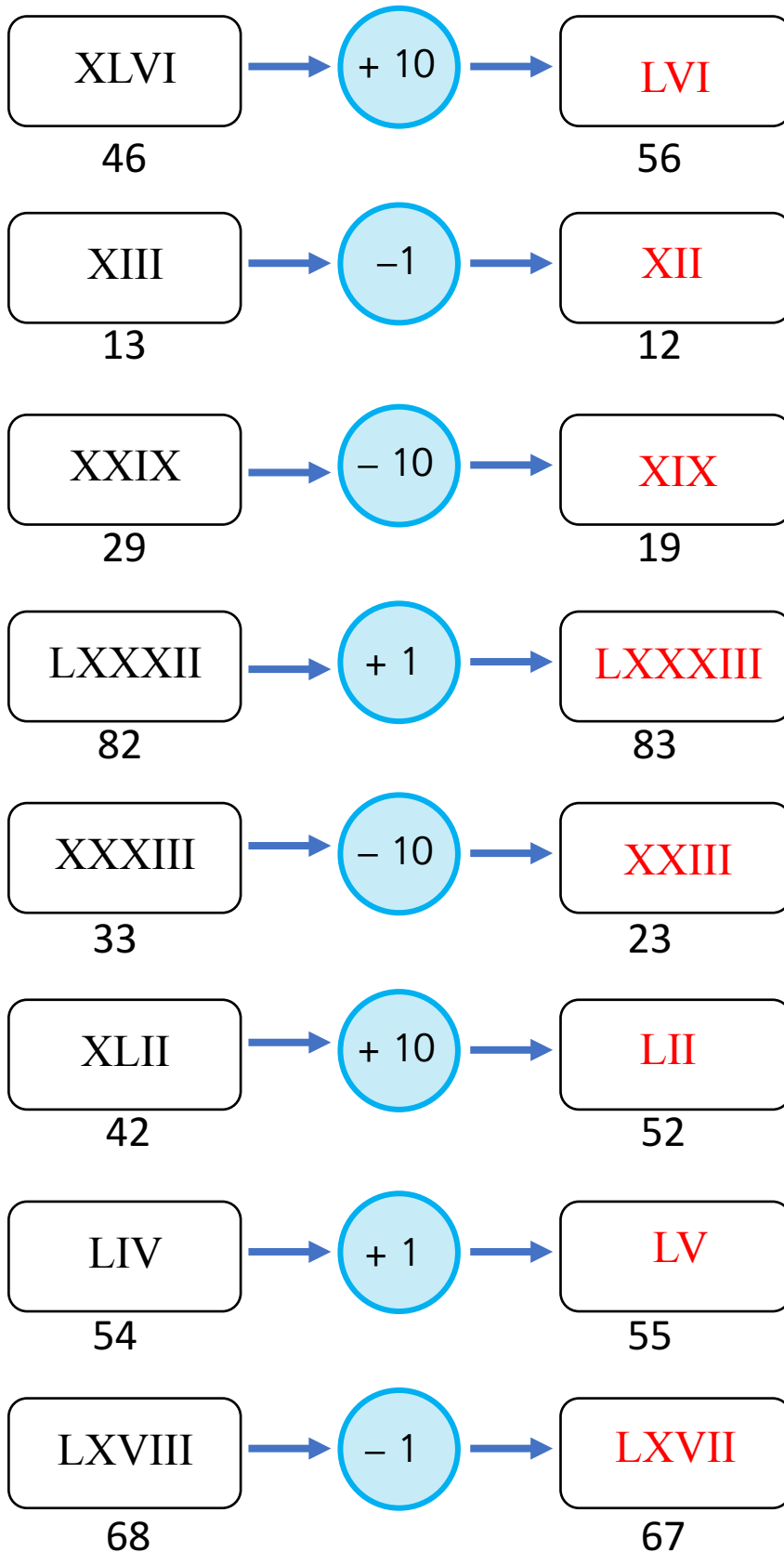
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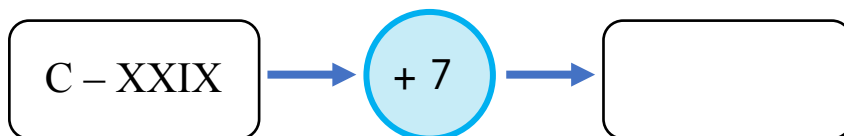
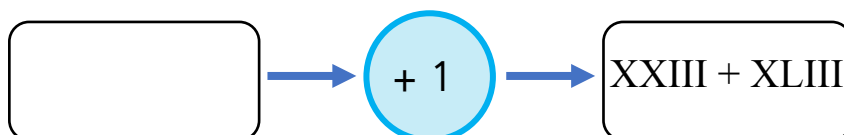
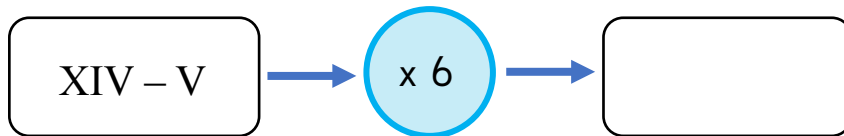
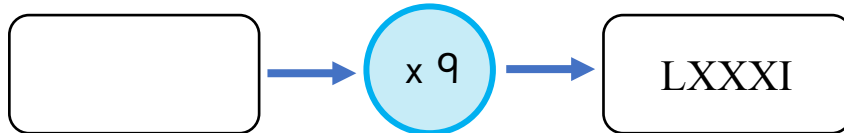
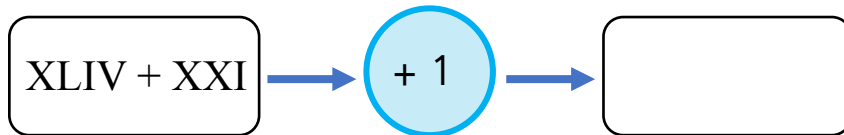
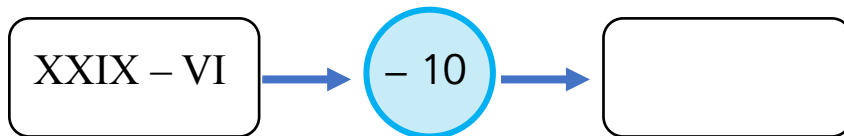
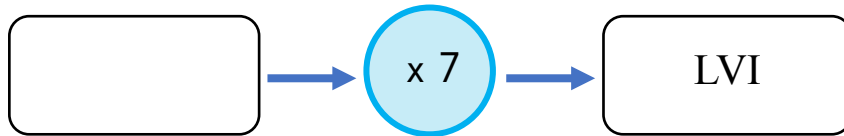
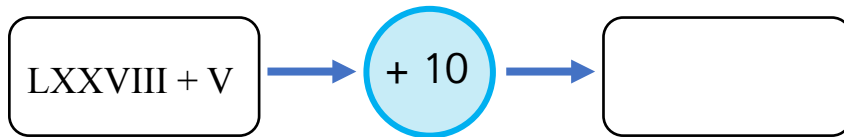
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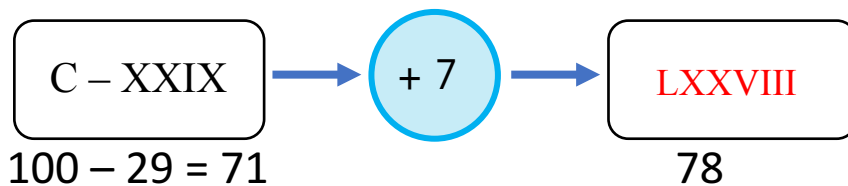
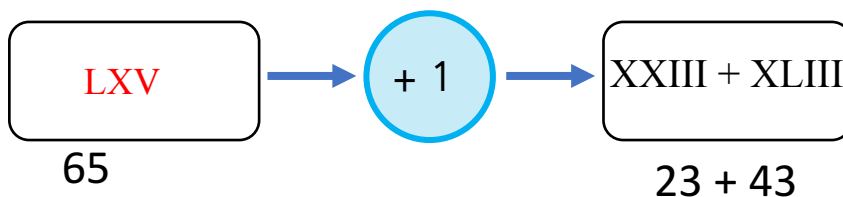
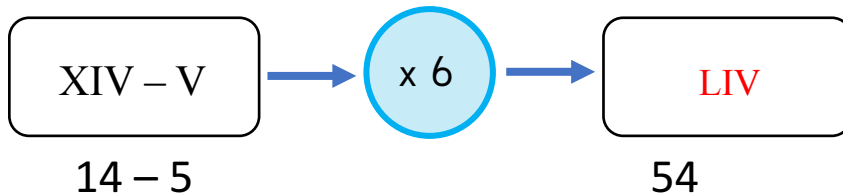
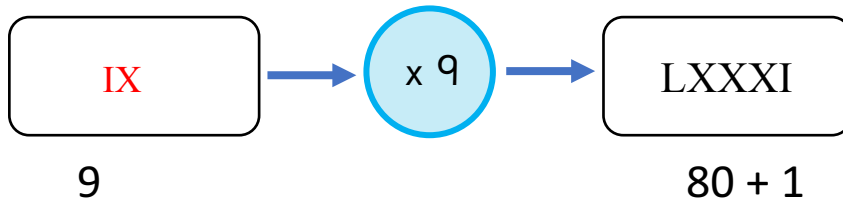
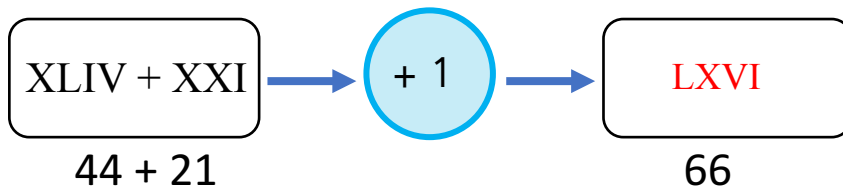
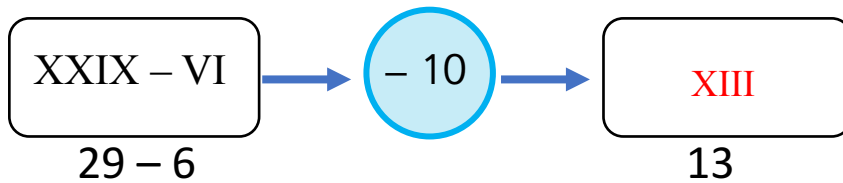
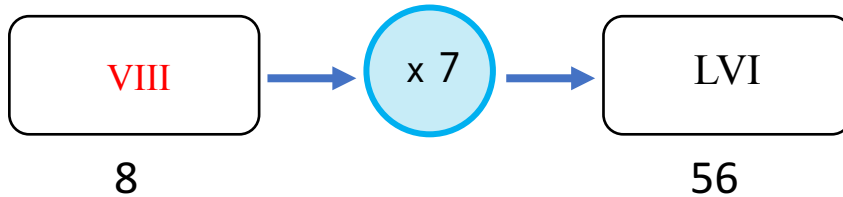
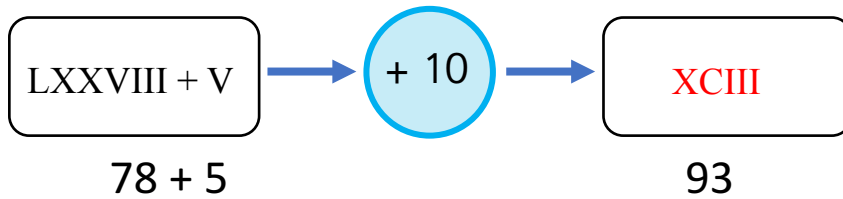


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$$C - X =$$

How many other calculations, using Roman Numeral, can you write to get the same total?

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X = 10, so if I am counting in tens in Roman Numerals, I keep on adding X.

Is Tia correct? Explain your answer.

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Solve the following calculation:

$$C - X = XC$$

$$100 - 10 = 90$$

How many other calculations, using Roman Numeral, can you write to get the same total?

Examples:

$$9 \times 10 = 90$$

$$IX \times X = XC$$

$$80 + 10 = 90$$

$$LXXX + X = XC$$

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Tia is partially correct- $10 = X$,
 $20 = XX$ $30 = XXX$
but when it reaches 40, it is XL

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Solve the following calculation:

$$76 - 10 = 66$$

$$\text{LXXVI} - \text{X} = \text{LXVI}$$

How many other calculations, using Roman Numeral, can you write to get the same total?

Other possible calculations include:

$$\text{XXXIII} \times \text{II} = \text{LXVI} \quad 33 \times 2 = 66$$

$$\text{XX} + \text{XX} + \text{XX} + \text{VI} = \text{LXVI} \text{ etc.}$$

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Is Tia correct?

Tia is incorrect.
For example, the number 50 has no X and no V neither does 100.

Solve the following calculation:

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Solve the following calculation:

$$16 \times 6 = 96$$

$$XVI \times VI = XCVI$$

How many other calculations, using Roman Numerals, can you write to get the same total?

Examples:

$$90 + 6 = 96$$

$$XC + VI = XCVI$$

$$12 \times 8 = 96$$

$$XII \times VIII = XCVI$$

Tia says:

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Pattern in some of the 2 times tables.

II, IV, VI, VIII, X, XII, XIV, XVI, XVIII, XX

Pattern in some of the 5 times tables.

V, X, XV, XX, XXV, XXX, XXXV, XL, XLV

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