

Max's Roman Numeral Architect Challenge

Learning objective: To read, write, and convert numbers to Roman numerals up to 1,000 (M) and understand the subtractive nature of the system.

Max the monkey is helping the town architect design a new library. He has found several ancient stone tablets marked with Roman numerals, but some are missing! Your task is to decode the tablets, complete the sequences, and help Max calculate the budget for the library's stone carvings. Remember: I=1, V=5, X=10, L=50, C=100, D=500, and M=1000.

Word bank: Subtractive · Additive · Numeral · Symbol · Value · Calculation

1. The first stone tablet displays the number 44. Write this as a Roman numeral. Explain why we use an 'IV' instead of 'IIII' in this sequence. (2 marks)

2. Max needs to label a display case with the year 2024. Write 2024 in Roman numerals. (1 mark)

3. A stone mason charges £150 for every 'C' carved. If the total cost is 'CDL', calculate the cost in pounds (£). Show your working. (2 marks)

4. Compare and contrast the Roman numeral system with our modern decimal (base-10) system. Why is it more difficult to perform long multiplication using Roman numerals? (3 marks)

5. The sequence on the library wall is: XC, XCV, C, CV, _____. Identify the missing numeral and justify your answer based on the pattern. (2 marks)

6. What might happen if the architect accidentally carved 'CM' instead of 'MC'? Explain the difference in value. (2 marks)

Draw: Draw a stone tablet that features the current year (2024) in large, bold Roman numerals, surrounded by decorative patterns fit for a grand library.



Extension challenge: Imagine you are an ancient stone carver. Write a short poem or a set of instructions for an apprentice on how to correctly carve the number 999 without making a mistake. Use the vocabulary: 'subtractive', 'value', and 'symbol'.