

Max the Monkey's Roman Numeral Expedition

Learning objective: To read, write, and convert Roman numerals up to 1,000 (M) and recognise years written in Roman numerals.

Max the Monkey has found an old stone tablet in the forest! Use your knowledge of Roman numerals (I, V, X, L, C, D, M) to help him decode these historical findings. Fill in the boxes below to solve the puzzles and ensure your working out is clearly shown.

Word bank: Numeral · Symbol · Value · Addition · Subtraction · Ascending · Descending · Convert

1. The Basic Symbols: Explain the value of each Roman numeral symbol (I, V, X, L, C, D, M) and describe the rule for when a smaller numeral is placed before a larger one. (3 marks)

2. Conversion Challenge: Convert the following Hindu-Arabic numbers into Roman numerals: 49, 194, and 566. Show your partitioning for each. (3 marks)

3. Historical Decoding: Max found a coin dated 'MCMXCII'. What year is this in our modern numbering system? Justify your answer by breaking down the value of each part of the numeral. (3 marks)

4. Comparison Task: Compare and contrast the Roman numeral system with our current decimal (base-10) system. Why is our modern system often considered more efficient for complex calculations? (4 marks)

5. Logical Reasoning: Explain why the Roman numeral 'IIII' is sometimes used on clock faces instead of the standard 'IV'. What might happen if we tried to use Roman numerals for high-speed modern maths? (3 marks)

6. Creative Extension: Imagine you have discovered a secret chamber. Create your own Roman numeral 'code' for the year 2025 and write a short, mysterious sentence describing what you found inside, incorporating at least one Roman numeral. (4 marks)

Extension challenge: Design a 'Roman Clock' face where every hour is represented by a unique Roman numeral expression. For example, can you represent the number 12 using a combination of symbols that is not just XII?