

Max's Mathematical Mastery: The Times Tables Challenge

Learning objective: To demonstrate rapid recall of multiplication tables up to 12x12 and apply these to multi-step reasoning problems.

Help Max the monkey solve his jungle puzzles! Use this template to record your times table strategies, solve complex calculations, and explain your mathematical reasoning. Show your working clearly to earn the maximum marks for each section.

Word bank: product · multiple · factor · calculation · commutative · inverse · strategy · reasoning

1. The Rapid Recall Grid: Choose a times table you find challenging (e.g., 7x, 8x, or 12x). Write out the sequence and explain the pattern you notice. (3 marks)

2. The Factor Finder: Max has 144 coconuts. If he wants to arrange them in equal rows, identify three different factor pairs for 144. Justify why these are correct. (4 marks)

3. The Commutative Comparison: Explain the commutative law of multiplication. Use an example to prove why 6×8 is the same as 8×6 . (3 marks)

4. Max's Market Mystery: If one bag of bananas costs £1.20 and Max buys 7 bags, calculate the total cost. Show your working using your times table knowledge. (3 marks)

5. The Inverse Operation: Write a multiplication fact for the number 96. Then, write the corresponding division fact and explain how they are related. (3 marks)

6. Logical Reasoning: What might happen if you multiplied a large odd number by an even number? Predict the result and justify your answer with a mathematical rule. (4 marks)

Extension challenge: Design your own 'Maths Maze' for a friend. Create a path where the user must land on multiples of a specific number (e.g., multiples of 6) to cross the jungle safely. Write the rules for your maze and explain the strategy used to solve it.