Max’s Mathematical Order of Operations Challenge

Learning objective: To understand and apply the order of operations (BIDMAS) to solve multi-step calculations.

Max the monkey has hidden his favourite bananas behind a series of number puzzles. Use the BIDMAS rule to solve the equations below. Remember: Brackets, Indices, Division and Multiplication (from left to right), Addition and Subtraction (from left to right).

Max knows that to solve any complex puzzle, you must follow the correct order! If you tackle the numbers in the wrong sequence, you will end up with the wrong result. Always check for brackets first, then look for powers (indices). After that, complete your multiplication and division before finishing with addition and subtraction.

Word bank: BIDMAS · Brackets · Indices · Division · Multiplication · Addition · Subtraction · Equation

1. Solve the following: 12 + (5 × 3) - 4 (2 marks)

2. Solve the following: 20 - 2^3 + 5 (2 marks)

3. Solve the following: 40 ÷ (2 + 3) × 2 (2 marks)

4. Max bought 3 bunches of bananas for £2.50 each and 1 apple for £0.60. Write a single calculation to find the total cost and solve it. (3 marks)

5. Insert brackets into this equation to make it correct: 4 + 6 × 2 = 20 (2 marks)

Draw: Draw Max the monkey sitting in a tree holding a sign that says 'B.I.D.M.A.S.' with a pile of numbered coconuts around him.

Extension challenge: Create your own three-step calculation using at least one set of brackets and one index (power). Swap with a partner to see if they can solve it using the BIDMAS rule.