Grade 5 Math Assessment: Mastering BIDMAS

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

Read each question carefully. Show all your working out, as marks are awarded for the steps you take, not just the final answer. Remember: Brackets, Indices, Division, Multiplication, Addition, Subtraction.

Max the monkey is organising his fruit stall. He needs to calculate the cost of his stock and arrange his crates using the correct order of operations to ensure his math is perfect.

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

1. Max has 4 crates of apples. Each crate costs £5. He also has a separate bag of pears costing £3. Write the calculation and solve it to find the total: 4 × 5 + 3. (2 marks)

2. Solve the following, showing your steps: 20 - (4 + 6) ÷ 2. (3 marks)

3. Calculate the value of: $3^2 + 5 \times 2$. (3 marks)

4. Compare these two expressions. Which one has a larger total? Show your workings for both: A) 10 + 5 × 2 and B) (10 + 5) × 2. (4 marks)

5. Max buys 3 boxes of bananas at £4 each and 2 boxes of oranges at £6 each. He has a discount voucher for £2. Write one calculation using brackets to represent his total spend and solve it. (4 marks)

6. Max has the calculation: 12 + 8 ÷ 2 - 3. Explain in detail why someone might get the wrong answer if they ignore the rules of BIDMAS. Provide the correct answer and identify the common mistake. (5 marks)

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

Draw: Draw a small fruit stand for Max the monkey with price tags on the crates that show a calculation instead of a price.

Extension challenge: Total: /25