Year 6 Maths Assessment: Mastering Long Division

Learning objective: To demonstrate proficiency in dividing four-digit numbers by two-digit numbers using formal written methods (long division) and interpreting remainders.

Read each question carefully. Show all your working out, as marks are awarded for the process even if the final answer is incorrect. Write your final answers clearly.

Max the monkey is organising his fruit collection. He has a large harvest and needs to divide his items into equal groups for the local wildlife sanctuary. Help Max solve his distribution puzzles using your knowledge of long division.

Word bank: Dividend · Divisor · Quotient · Remainder · Formal method · Place value · Estimate

1. Max has 1,248 bananas. He needs to pack them into boxes that hold 12 bananas each. How many boxes will he fill? Show your long division working. (3 marks)

2. Calculate 2,574 ÷ 22. Show your steps clearly. (3 marks)

3. A shipment of 3,650 apples arrives. If each crate holds 25 apples, how many full crates will there be? Will there be any apples left over? (4 marks)

4. Estimate the answer to 4,896 ÷ 16 by rounding the numbers first. Then, calculate the exact answer. (4 marks)

5. Max has £1,536 to buy supplies. If he spends the money equally across 32 days, how much can he spend each day? Show your long division method. (6 marks)

6. Max has a remainder of 14 after dividing 890 by 24. Explain why it is important to check if your remainder is smaller than your divisor. (5 marks)

Draw: Draw a visual representation of how you would group 20 items into 4 equal sets to explain the concept of division to a younger student.

Extension challenge: Total: /25