

Grade 3 Mathematics Assessment: Mastering Multiplication

Learning objective: To recall and use multiplication tables for the 3, 4, 6, 7, 8, 9, 11 and 12 times tables, and to solve problems involving multiplying two-digit numbers by one-digit numbers.

Read each question carefully. Show your working out clearly, as you may gain marks for your method even if the final answer is incorrect. Ensure all money answers include the £ symbol.

Max the monkey is organising his jungle pantry. He has 14 crates of bananas, and each crate holds 8 bananas. He also has 7 baskets of mangoes, with 12 mangoes in each basket. To help his friends, he decides to sell some fruit at the local market for 6p per item.

Word bank: Product · Multiplicand · Factor · Partitioning · Commutative · Estimate

1. Using Max's pantry data, calculate the total number of bananas. Show your partitioning method. (2 marks)

2. Max finds 9 extra crates, each containing 7 mangoes. Explain why multiplying 9 by 7 gives the same product as multiplying 7 by 9. What is this mathematical property called? (2 marks)

3. If Max sells 15 mangoes at 6p each, what is the total cost? Write your answer in pounds (£). (2 marks)

4. Calculate 12×8 and 11×9 . Compare these two products. Which is larger and by how much? (3 marks)

5. A box of exotic nuts costs £4. Ellie the elephant buys 24 boxes. If she pays with a £100 note, how much change should she receive? Justify your answer by showing your calculation steps. (4 marks)

6. Kit the fox has a pattern of numbers: 6, 12, 18, 24... What is the rule for this sequence? If the sequence continues, what will the 10th number be? Explain your reasoning. (4 marks)

7. Max wants to arrange 144 items into equal rows. Identify three different ways he could arrange them (e.g., how many rows and how many items per row). Explain why it is helpful to know factor pairs when solving this problem. (5 marks)

Draw: Draw an array to represent the multiplication sum 7×4 . Label your rows and columns clearly.

Extension challenge: Imagine you are Max the monkey. Write a short journal entry (approx. 100 words) describing your day at the market. You must include a multiplication problem that you solved during your trading, showing the calculation and the final total in dollars and cents. Total: /25