

Year 6 Mathematics Assessment: Multiplication Mastery

Learning objective: To multiply multi-digit numbers using formal written methods and solve multi-step problems involving multiplication.

Read each question carefully. Show your working out for all calculations, as marks may be awarded for the method even if the final answer is incorrect. Use the space provided for your answers.

Max the monkey is organising a jungle harvest festival. He needs to calculate the quantities of fruit and supplies required for the animals of the forest. Help Max solve these mathematical puzzles to ensure the festival is a success.

Word bank: product · factor · long multiplication · estimate · calculation · multiple

1. Max has 24 crates of bananas. Each crate contains 18 bunches. How many bunches of bananas does Max have in total? (2 marks)

2. Calculate the product of 4,321 and 7. Show your formal written method. (2 marks)

3. A box of honeycomb pieces costs £1.45. If Bea the honeybee orders 12 boxes for the festival, what is the total cost in pounds and pence? (3 marks)

4. Kit the fox is buying building supplies. He needs 156 wooden planks, and each plank costs £4.25. Estimate the total cost first by rounding the numbers, then calculate the exact total. (4 marks)

5. Leo the lion is arranging chairs for the performance. There are 23 rows of chairs, and each row has 14 chairs. If 40 chairs are removed because they are broken, how many chairs are left for the audience? (4 marks)

6. Explain, in your own words, the step-by-step process of using long multiplication to solve 345×26 . Why is it important to place a zero in the ones column when multiplying by the tens digit? (5 marks)

7. Zara is designing a pattern of leaves. She draws 12 sets of 12 leaves. If she adds 5 more sets of 12, how many leaves has she drawn in total? (5 marks)

Draw: Draw a visual representation of a 'multiplication array' that shows 4×6 , and label the factors and the product.

Extension challenge: Total: /25