

Year 5 Maths Assessment: Mastering Long Multiplication

Learning objective: To multiply numbers up to 4 digits by a 2-digit number using the formal written method of long multiplication.

Read each question carefully. Show all your working out in the space provided to earn method marks. Ensure you write your final answer clearly on the line.

Max the monkey is helping the forest animals prepare for the Winter Feast. He needs to calculate how many supplies they have collected using his maths skills. Help Max solve these problems to ensure everyone has enough food for the winter.

Word bank: Product · Place value · Multiplicand · Multiplier · Column · Regrouping · Calculation

1. Max finds 14 crates of acorns. Each crate contains 23 acorns. How many acorns does Max have in total? (2 marks)

2. Calculate the product of 45 and 32 using the long multiplication method. Show your regrouping clearly. (3 marks)

3. A local farmer has 126 bags of grain. Each bag weighs 15kg. What is the total weight of the grain? Show your working. (3 marks)

4. Evaluate this statement: 'To multiply 245 by 12, I must first multiply 245 by 10 and then add the result of 245 multiplied by 2.' Is this correct? Explain your reasoning using mathematical terminology. (4 marks)

5. Max has 1,240 marbles. He wants to share them into 24 smaller boxes, with each box containing the same amount. If he fills all 24 boxes, how many marbles will he have used in total? Use long multiplication to verify. (3 marks)

6. Problem Solving: The forest market sells jars of honey for £18 each. Bea the honeybee sells 125 jars on Monday and 142 jars on Tuesday. Calculate the total income from honey sales over the two days. Provide your answer in pounds (£). (5 marks)

7. Find the missing digit in this calculation: $32 \times 1_ = 448$. (5 marks)

Draw: Draw a visual representation or array diagram to show how you would break down the multiplication of 12×13 .

Extension challenge: Total: /25