

Max's Mathematical Multiplication Challenge

Learning objective: To multiply two-digit and three-digit numbers by a one-digit number using formal written layout and mental strategies.

Max the monkey is busy organising his forest pantry! Use your knowledge of multiplication to help him calculate the totals. Show your working out clearly to earn full marks.

Max has been collecting fruit for the winter. He has 4 crates of bananas, each containing 26 bananas. He also has 3 baskets of mangoes, with 145 mangoes in each basket. Help Max calculate his stock!

Word bank: product · multiply · partitioning · column method · total · digit · exchange · remainder

1. Max has 4 crates of bananas with 26 bananas in each. Use the column method to calculate the total number of bananas. (2 marks)

2. Calculate the product of 145 and 3. Show how you partition the number 145 to make your mental calculation easier. (3 marks)

3. Max finds 7 bags of nuts. Each bag costs £12. If he buys all 7 bags, what is the total cost in pounds? (2 marks)

4. Explain why it is helpful to use the column method when multiplying a three-digit number by a one-digit number, compared to using repeated addition. (3 marks)

5. Max has £85. If he wants to buy 6 items that cost £14 each, does he have enough money? Justify your answer using a calculation. (4 marks)

Draw: Draw a scene of Max the monkey in his pantry, arranging crates of fruit into neat arrays to show his multiplication work.



Extension challenge: Max wonders: 'What might happen if I had 12 crates of 26 bananas instead of 4?' Create a strategy to solve this larger multiplication problem and explain your reasoning. Compare this to the original calculation.