

Max's Market Multiplication Challenge

Learning objective: To multiply multi-digit numbers using formal written methods, including long multiplication.

Help Max the monkey calculate the total costs at the forest market. Show all your working out clearly in the space provided.

Max the monkey is helping the forest animals organise their community bake sale. He needs to calculate the total cost of ingredients for the treats. Each bag of flour costs £4.25, and they need 24 bags. Each tray of luxury cocoa powder costs £12.75, and they need 15 trays. Max loves using maths to ensure they have enough money for their charity fundraiser, so he carefully writes down his calculations to avoid any mistakes.

Word bank: multiplicand · multiplier · product · column · place value · exchange · estimate

1. Using formal long multiplication, calculate the total cost of 24 bags of flour at £4.25 each. (2 marks)

2. Calculate the total cost of 15 trays of cocoa powder at £12.75 each. Show your steps. (2 marks)

3. If Max also buys 12 boxes of honey at £8.50 each, what is the total cost of the honey? (2 marks)

4. Estimate the total cost of all three items (flour, cocoa, and honey) by rounding the prices to the nearest pound. Is your calculated total close to your estimate? (2 marks)

5. Max has a budget of £400. After buying all the items mentioned above, how much money does he have remaining? (2 marks)

Draw: Draw a picture of Max the monkey standing at a wooden market stall, holding a clipboard and a pencil while surrounded by bags of flour and trays of cocoa powder.



Extension challenge: Challenge: If the bake sale sells 150 cakes for £2.50 each, how much profit will they make after subtracting the total cost of the ingredients you calculated in the previous questions?