

Max's Market Stall Challenge: Mastering Percentages

Learning objective: To recall and use equivalences between simple fractions, decimals, and percentages, and to solve problems involving the calculation of percentages of amounts.

Max the Monkey is managing a fruit stall at the local community fair. He needs your expertise to calculate special discounts and stock totals. For each task, show your working out. Remember that a percentage is simply 'parts per hundred'. Use the word bank to help you match the fractional values to their percentage equivalents before solving Max's calculations.

Word bank: $\frac{1}{2} = 50\%$ · $\frac{1}{4} = 25\%$ · $\frac{1}{10} = 10\%$ · $\frac{1}{5} = 20\%$ · $\frac{3}{4} = 75\%$ · Denominator · Numerator · Hundredths

1. Max has 200 apples. He sells 25% of them before lunch. How many apples did he sell? Show your calculation. (2 marks)

2. A crate of pears costs £40. Max offers a 10% discount to customers who buy in bulk. What is the price of the discount in pounds (£)? (2 marks)

3. Max sold 50% of his 80 bunches of bananas. If each bunch costs £2, how much money did he make from the bananas he sold? (2 marks)

4. Explain why 75% of an amount is the same as finding 25% and multiplying it by 3. Justify your answer using an example. (3 marks)

5. Compare and contrast calculating 20% of £50 and 50% of £20. What do you notice about the final totals and why does this happen? (3 marks)

6. What might happen to Max's profit if he accidentally offered a 50% discount on all his stock instead of a 5% discount? Justify your reasoning. (3 marks)

Draw: Draw a 'Percentage Pie Chart' for Max's stall showing 50% apples, 25% bananas, 10% pears, and 15% oranges. Label each slice clearly with the correct percentage.



Extension challenge: Design your own fruit stall pricing list for Max. Create three items with different original prices (e.g., £10, £20, £50) and assign a different percentage discount to each. Calculate the new sale price for all three items and explain which discount offers the best value to the customer.