Max’s Market Stall: A Percentage Challenge

Learning objective: To recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred'.

Max the monkey is helping at the local community market. Use your knowledge of fractions and decimals to help Max calculate his shop totals. Remember: 1% is 1/100 of a whole.

Max is organising the market stall. He has 100 organic apples for sale. By midday, he has sold 25 apples. Max explains that he has sold 25% of his stock. He tells his friends that 25% is exactly the same as the fraction 25/100, which can be simplified to 1/4. Later, Max sets up a display of 100 colourful ribbons. He sells 50% of them to a local craft group. Because 50% is half of 100, Max knows he has 50 ribbons left. He is now calculating prices for his jars of honey, which cost £10.00 each. If he offers a 10% discount, he needs to find one-tenth of the price to know how much to subtract.

Word bank: Percentage · Fraction · Decimal · Equivalent · Proportion · Numerator · Denominator · Hundredths

1. Max has 100 jars of honey. If he sells 35% of them in the morning, how many jars are left to sell in the afternoon? Show your working. (2 marks)

2. Explain why 50% is equivalent to 0.5 and 1/2. Use your knowledge of place value to justify your answer. (3 marks)

3. Max wants to sell a basket of fruit for £20.00. He decides to offer a 25% discount. Calculate the amount of the discount in pounds (£) and the new price of the basket. (3 marks)

4. Compare and contrast 20% and 0.2. Why is it helpful to convert between percentages, decimals, and fractions when working with money? (3 marks)

5. If Max has 100 packets of seeds and sells 75% of them, how many packets remain? Express this remainder as a fraction in its simplest form. (2 marks)

Draw: Draw a 'Percentage Pie Chart' showing Max's stall stock: 50% apples, 25% oranges, and 25% pears. Label each section with its percentage and the equivalent fraction.

Extension challenge: Max is planning a grand sale. If he reduces the price of a £40.00 item by 10%, then reduces that new price by a further 10%, is the final price the same as a 20% discount? Justify your answer with calculations and explain what might happen if he applied the discounts in a different order.