

Max's Market Stall: A Measurement Challenge

Learning objective: To convert between units of measurement (km/m, m/cm, kg/g, l/ml) and solve multi-step problems involving money and mass.

Max the monkey is organising a charity market stall. He has various items to sell, but his scales and labels are in different units! Read the data provided in each question and perform the necessary conversions to solve the mathematical problems. Show your working out clearly to earn full marks.

Word bank: kilograms · grams · litres · millilitres · conversion · decimal · equivalent

1. Max has a bag of organic apples weighing 2.5kg. He wants to divide them into smaller 250g bags to sell for £1.50 each. How many bags can he make, and how much money will he collect in total? (3 marks)

2. A large bottle of apple juice holds 2 litres. Max pours the juice into cups that hold 200ml each. If he sells each cup for 80p, explain why he would make more money selling individual cups than selling the whole bottle for £6.00. (3 marks)

3. Max needs to walk from the fruit orchard to the market, which is 1.2 kilometres away. He has already walked 450 metres. How many metres does he have left to travel? Justify your answer using your knowledge of km to m conversion. (3 marks)

4. Compare and contrast the units of capacity. If a container holds 1.5 litres, how many millilitres is this? If you had three of these containers, would you have more or less than 5000ml? Show your calculation. (3 marks)

5. Max buys a decorative ribbon that is 3 metres long. He cuts it into 10 equal pieces for gift wrapping. What is the length of one piece in centimetres? Explain your reasoning. (2 marks)

6. What might happen if Max accidentally used grams instead of kilograms when weighing out 5kg of flour for a cake recipe? Explain the impact this would have on the final result. (2 marks)

Draw: Draw a scale showing 1.5kg of bananas, and next to it, a juice jug marked at the 750ml level.



Extension challenge: Design your own market price list for three items. You must list the mass or volume of each item in two different units (e.g., 1kg and 1000g) and assign a price in pounds and pence that reflects the weight of the item. Write a short paragraph justifying your pricing strategy.