

Max's Christmas Market Maths Challenge

Learning objective: To apply knowledge of money, perimeter, and symmetry in a festive context.

Follow Max the monkey's instructions to design your own Christmas market stall. Use your ruler to ensure your shapes are accurate and remember to include the correct mathematical labels.

Draw: Draw a festive market stall in the centre of the page. Use a ruler to create a rectangular or square base. Add a decorative roof using triangles. Include three items for sale on the counter and ensure the design is symmetrical. Use neat labels for your measurements and prices.



Label words: Symmetry · Perimeter · Pounds (£) · Pence (p) · Right angle · Area · Total cost

Steps:

1. Step 1: Draw your market stall as a 2D shape. Calculate the perimeter if each side is 5cm. Show your working out.
2. Step 2: Draw three items for sale on your stall. Label them with prices (e.g., £2.50, 75p). What is the total cost if a customer buys one of each?
3. Explain why it is important for Max to use a ruler to measure the perimeter of his stall before he starts building.
4. Compare and contrast your stall design with a square stall. What might happen if the perimeter was too

small for the items?

5. Justify your answer: If an item costs £1.20 and you pay with a £2.00 coin, how much change should you receive? Show your calculation.

6. Creative Extension: Draw a line of symmetry through your stall. If you added a festive decoration to the left side, what must you do to the right side to keep it symmetrical?