

Max's Measurement Mission: Area and Perimeter

Learning objective: To calculate the perimeter of composite rectilinear shapes and the area of rectangles and squares using standard units.

Max the monkey is helping build a new animal sanctuary. Read each question carefully and show your working out to help him finish the math puzzles.

Word bank: perimeter · area · square centimetres · rectilinear · composite · formula · dimension

1. Max is building a rectangular enclosure for the tortoise. The length is 8m and the width is 5m. Calculate the area of the enclosure in square metres. (2 marks)

2. The monkey sanctuary has a square-shaped garden with a side length of 9m. What is the perimeter of this garden? (2 marks)

3. A small pond is in the shape of an L-shaped (rectilinear) polygon. One side is 4m, a side perpendicular to it is 3m, and the total length of the long side is 7m. Explain the steps you would take to find the total perimeter. (3 marks)

4. Max wants to buy fencing for a rectangular paddock that is 12m long and 4m wide. If fencing costs £5 per meter, how much will the total fencing cost? (3 marks)

5. A rectangle has an area of 48cm^2 . If the length is 6cm, what is the width of the rectangle? (2 marks)

Draw: Draw an L-shaped composite shape on a piece of squared paper and label the lengths of all sides so that the perimeter equals 20cm.



Extension challenge: Max has £100 to spend on tiles for a square floor. Each tile is 1m by 1m and costs £4. What is the largest square floor he can tile, and how much money will he have left over?