

Max the Monkey's Area and Perimeter Challenge

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

Help Max the Monkey solve these mathematical puzzles! Read each question carefully. Remember: Perimeter is the distance around the outside, and area is the space inside a shape.

Answer Key: 1. A, 2. True, 3. 24cm, 4. B, 5. False, 6. 30cm², 7. C, 8. True, 9. 20cm, 10. A. Explanation: Perimeter is the sum of all sides; Area is length multiplied by width.

Word bank: perimeter · area · square centimetres · rectilinear · formula · multiply · add

1. 1. Max has a rectangular garden measuring 5cm by 3cm. What is the area? A) 15cm²* B) 8cm² C) 16cm² D) 30cm² (1 mark)

2. 2. True or False: To find the perimeter of a shape, you add the lengths of all its outer sides together. (1 mark)

3. 3. A square has a side length of 6cm. What is its perimeter? (1 mark)

4. 4. Which unit is used to measure area? A) cm B) cm²* C) cm³ D) m (1 mark)

5. 5. True or False: A rectangle with sides 4cm and 2cm has an area of 12cm². (1 mark)

6. 6. A rectangle has a length of 6cm and a width of 5cm. What is the area? (1 mark)

7. 7. If a shape has a perimeter of 12cm, which of these could be its side lengths? A) 2cm by 2cm B) 4cm by 4cm C) 3cm by 3cm* D) 6cm by 6cm (1 mark)

8. 8. True or False: The area of a rectangle is found by multiplying the length by the width. (1 mark)

9. 9. A regular pentagon has sides of 4cm each. What is the perimeter? (1 mark)

10. 10. Max buys a rug that costs £5 per square metre. If the rug is 4m by 2m, how much does it cost? A) £40* B) £20 C) £12 D) £50 (1 mark)

Draw: Draw a rectilinear shape (a shape made of rectangles) on squared paper and label the lengths of all sides so that the total perimeter is 20cm.



Extension challenge: Design a 'Monkey Playground' on squared paper where the total area is exactly 40cm². Label your dimensions clearly!