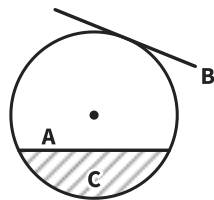


1 Parts of a circle

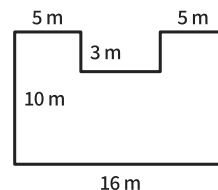
- a) Write the name of each part labelled A, B and C.
- b) What is the name of the region between two radii and an arc?



- a) A chord, B tangent
C segment
- b) a sector

2 Perimeter of compound shapes

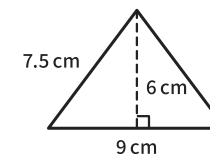
All the corners are right angles.
A fence goes all round this garden.



- a) Work out the perimeter of the garden.
- b) Fence panels are 2.5 m long.
How many are needed?
- a) $5 + 3 + 6 + 3 + 5 + 10 + 16 + 10 = 58 \text{ m}$
- b) $58 \div 2.5 = 23.2$, so 24 panels

3 Area of 2D shapes

- a) Work out the area of the triangle.
- b) A parallelogram has the same area. Its base is 6 cm.
Work out its perpendicular height.

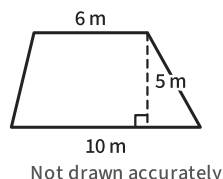


- a) $\frac{1}{2} \times 9 \times 6 = 27 \text{ cm}^2$
- b) $27 \div 6 = 4.5 \text{ cm}$

4 Area of 2D shapes

A lawn is a trapezium.

- a) Work out the area of the lawn.
- b) Turf costs £3.75 for each m^2 .
Work out the cost of turf for the lawn.



- a) $(6 + 10) \div 2 \times 5 = 40 \text{ m}^2$
- b) $40 \times 3.75 = \text{£}150$

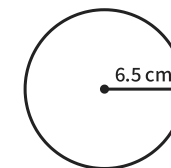
Perimeter and area of 2D shapes

revision mat answers

Foundation A

5 Circumference and area of a circle

- a) Work out the circumference of this circle. Give your answer to 1 decimal place.
- b) A bike wheel has a diameter of 70 cm. How many complete turns does it make in 100 m?

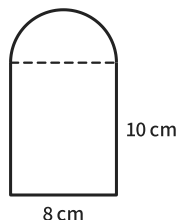


- a) $\pi \times 13 = 40.8 \text{ cm}$
- b) $\pi \times 70 = 219.9 \text{ cm}$
- $10000 \div 219.9 = 45.4...$, 45 turns

6 Circumference and area of a circle

The shape is a rectangle and a semicircle.

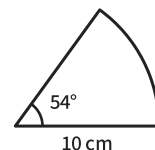
- a) Work out the area of the semicircle.
Give your answer to 1 decimal place.
- b) Work out the area of the whole shape.



- a) $\pi \times 4^2 \div 2 = 25.1 \text{ cm}^2$
- b) $80 + 25.1 = 105.1 \text{ cm}^2$

7 Arc length

- a) Work out the arc length of this sector. Give your answer to 1 decimal place.
- b) The minute hand of a clock is 9 cm long. How far does its tip move in 20 minutes?

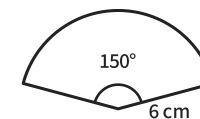


Not drawn accurately

- a) $54 \div 360 \times \pi \times 20 = 9.4 \text{ cm}$
- b) 20 minutes is 120°
- $120 \div 360 \times \pi \times 18 = 18.8 \text{ cm}$

8 Area of a sector

- a) Work out the area of this sector.
Give your answer to 1 decimal place.
- b) A sprinkler sprays water up to 5 m. It turns through 100° .
What area of grass does it water?



Not drawn accurately

- a) $150 \div 360 \times \pi \times 6^2 = 47.1 \text{ cm}^2$
- b) $100 \div 360 \times \pi \times 5^2 = 21.8 \text{ m}^2$