

Mensuration

Syllabus tracker [Open it online](#)

Name: _____

Date: _____

Tick one circle for each statement — on screen (click) or with a pen. Then try the quick checks: write your answer in the box, check it against the answers at the end, and tick “right” when you got it.

Area and perimeter

Metric units, triangles, trapezia, parallelograms and circles.

	Don't know	Shaky	Got it
I can convert between metric units, including capacity.	☐	☐	☐
I can find the area of triangles, parallelograms and trapezia.	☐	☐	☐
I can find the circumference and area of a circle.	☐	☐	☐

Arcs, sectors and segments

Fractions of a circle and the segment between a chord and an arc.

	Don't know	Shaky	Got it
I can find the length of an arc.	☐	☐	☐
I can find the area of a sector.	☐	☐	☐
I can find the area of a segment.	☐	☐	☐

Prisms, cuboids and cylinders

Volume and surface area.

	Don't know	Shaky	Got it
I can find the volume of a prism.	☐	☐	☐
I can find the volume of a cylinder.	☐	☐	☐
I can find the surface area of a cuboid or prism.	☐	☐	☐

Pyramids, cones, spheres and compound solids

Volumes and surface areas, including composite shapes.

	Don't know	Shaky	Got it
I can find the volume of a pyramid or cone.	☐	☐	☐
I can find the curved surface area of a cone.	☐	☐	☐
I can find the volume of a sphere or hemisphere.	☐	☐	☐
I can find the volume of a compound solid.	☐	☐	☐

Nets

Recognising the net of a solid.

	Don't know	Shaky	Got it
I can recognise the net of a solid.	☐	☐	☐

Quick checks

One quick question per statement. Answer in the box, then check the answers at the end.

1. How many litres is 4500 cm^3 ?

Answer: _____

☐ I got it right

2. A trapezium has parallel sides 6 cm and 10 cm and height 5 cm. Find its area in cm^2 .

Answer: _____

☐ I got it right

3. Find the area of a circle with radius 5 cm, to 3 significant figures (in cm^2).

Answer: _____

☐ I got it right

4. Find the length of an arc with radius 9 cm and angle 80° , to 3 significant figures (in cm).

Answer: _____

☐ I got it right

5. A sector has radius 6 cm and angle 120° . Its area is $k\pi \text{ cm}^2$. What is k?

Answer: _____

☐ I got it right

6. A sector has radius 10 cm and angle 90° . Find the area of the minor segment, to 3 significant figures (in cm^2).

Answer: _____

☐ I got it right

7. A prism has cross-section area 12 cm^2 and length 8 cm. Find its volume in cm^3 .

Answer: _____

☐ I got it right

8. A cylinder has radius 3 cm and height 10 cm. Its volume is $k\pi \text{ cm}^3$. What is k?

Answer: _____

☐ I got it right

9. Find the total surface area of a $5 \text{ cm} \times 4 \text{ cm} \times 3 \text{ cm}$ cuboid, in cm^2 .

Answer: _____

☐ I got it right

10. A pyramid has a square base of side 6 cm and height 10 cm. Find its volume in cm^3 .

Answer: _____

☐ I got it right

11. A cone has radius 3 cm and slant height 5 cm. Its curved surface area is $k\pi \text{ cm}^2$. What is k?

Answer: _____

☐ I got it right

12. A sphere has radius 3 cm. Its volume is $k\pi \text{ cm}^3$. What is k?

Answer: _____

☐ I got it right

13. A cylinder (radius 2 cm, height 5 cm) has a hemisphere of radius 2 cm on top. Its volume is $k\pi \text{ cm}^3$. Find k to 3 significant figures.

Answer: _____

☐ I got it right

14. A net is made of one rectangle and two circles. Which solid is it?

A Cylinder **B** Cone **C** Sphere **D** Triangular prism

Answer: _____

☐ I got it right

Answers

Try every question first, then check.

- | | |
|---------|-----------------|
| 1. 4.5 | 8. 90 |
| 2. 40 | 9. 94 |
| 3. 78.5 | 10. 120 |
| 4. 12.6 | 11. 15 |
| 5. 12 | 12. 36 |
| 6. 28.5 | 13. 25.3 |
| 7. 96 | 14. A: Cylinder |