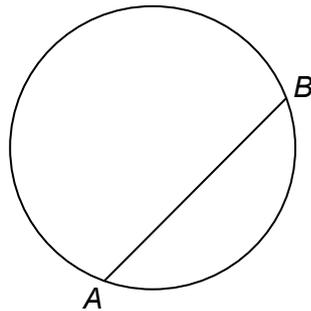# Topic Test 1 (20 minutes)
Circumference and area - Foundation

1 (a)   Circle the word that describes the line *AB*.

[1 mark]

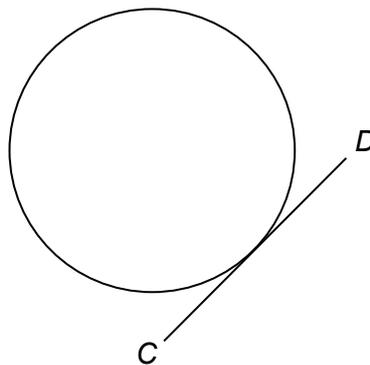chord   diameter   radius   tangent

1 (b)   Circle the word that describes the line *CD*.
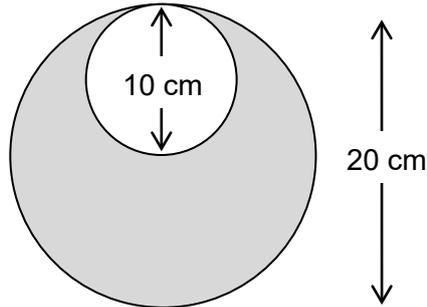

[1 mark]

chord   diameter   radius   tangent

2   This shape is made from circles.

The diameter of

the smaller circle is 10 cm
the larger circle is 20 cm
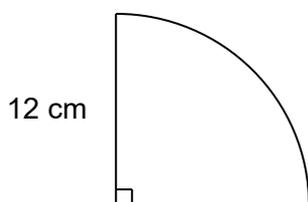

10 cm

20 cm

Not drawn
accurately

What fraction of the shape is shaded?

Give your answer in its simplest form.

[4 marks]

Answer _____

3   The diagram shows a quarter circle of radius 12 cm

Not drawn
accurately

12 cm

Work out the area of the shape.

[2 marks]

Answer _____ cm^2

4   A marble is a sphere of radius 6 mm

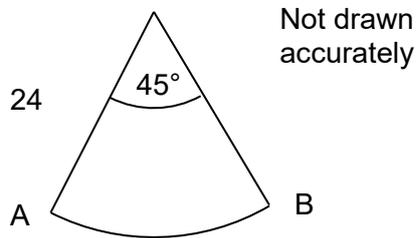You are given that   surface area of a sphere = $4\pi \times$ radius^2

Work out the surface area of the marble.

[2 marks]

Answer _____ mm^2

5 The diagram shows a shape made from two semicircles.

The radius of the larger semicircle is 8 cm

8 cm

Not drawn accurately

Work out the perimeter of the shape.

Give your answer in terms of π.

[3 marks]

Answer _____ cm

6 The diagram shows a solid cone.

You are given that   curved surface area of a cone = π × radius × slant height

Work out the **total** surface area of the cone.

[4 marks]

Answer _____ cm^2

7 The diagram shows a sector of a circle of radius 24 cm

Not drawn accurately

24

45°

A

B

Work out the arc length AB.

[3 marks]

_____

_____

_____

_____

_____

_____

_____

Answer _____ cm