1. A bicycle wheel has a diameter of 64 cm.

What is the **radius** of the bicycle wheel?

cm

1 mark

2. Use these measurements to complete the sentences below.

| 8 cm | | 25 cm | | 4 cm |

The radius of a circle is _____ cm;

its diameter is _____ cm and
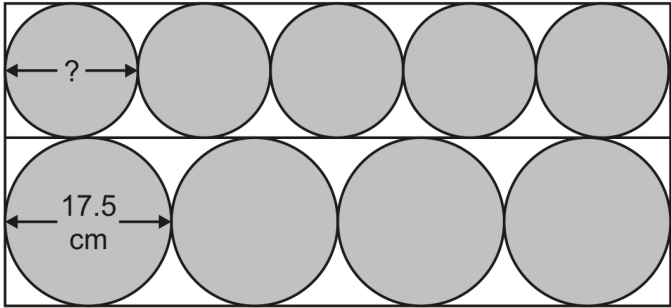
its circumference is approximately _____ cm.

1 mark

3. A circle has a diameter of 22 cm.

What is the length of its radius?

cm

1 mark

4. Four large circles and five small circles fit exactly inside this rectangle.

Not actual size

The **diameter** of a large circle is **17.5** centimetres.

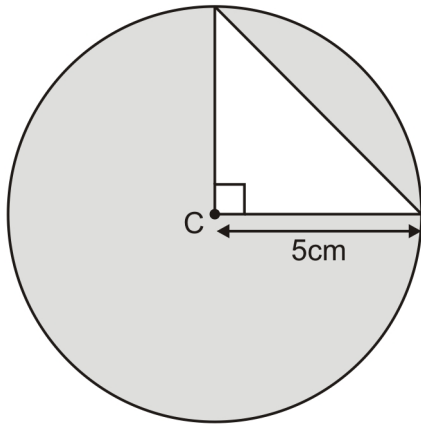Calculate the **diameter** of a small circle.

Show your method

cm

2 marks

5. The diagram shows a **right-angled triangle** inside a **circle**.

The circle has a radius of **5 centimetres**.

Calculate the **area** of the **triangle**.

cm²

1 mark

Calculate the area of the **shaded part** of the diagram.

Show your method

cm²

2 mark

Mark schemes

1. 32

[1]

2. Award **ONE** mark for three measurements placed as shown:

The radius of a circle is __**4**__ cm;

its diameter is __**8**__ cm and

its circumference is approximately __**25**__ cm.

[1]

3. 11 cm

[1]

4. Award **TWO** marks for the correct answer of 14

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, eg

17.5 × 4 = 70

70 ÷ 5

*Accept for **ONE** mark 140 **OR** 1.4 as evidence of appropriate method.*
*Answer need not be obtained for the award of **ONE** mark.*

Up to 2 (U1)

[2]

5. (a) 12.5 **OR** 12½

1

(b) Award **TWO** marks for the correct answer in the range of 66 to 66.1 inclusive **OR** an answer based upon values obtained in **13a**.

If the answer is incorrect award **ONE** mark for evidence of an appropriate method, eg

- (3.14 × 5 × 5) −12.5

The calculation need not be completed for the award of the mark.

Up to 2

[3]