



This is level 4; the areas of circles are given, find either the radius, diameter or circumference. Give your answers correct to three [significant figures](#). You can earn a trophy if you get at least 7 correct. The diagrams are not drawn to scale.



Calculate the radius of a circle if the area is  $52.3\text{cm}^2$ .

**4.08** cm ✓

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Calculate the radius of a circle if the area is  $59.2\text{cm}^2$ .

**4.34** cm ✓

.....

Calculate the diameter of a circle if the area is  $66.2\text{cm}^2$ .

**9.18** cm ✓

.....

Calculate the diameter of a circle if the area is  $68.9\text{cm}^2$ .

**9.37** cm ✓

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Calculate the circumference of a circle if the area is  $70.8\text{cm}^2$ .

**29.8** cm ✓

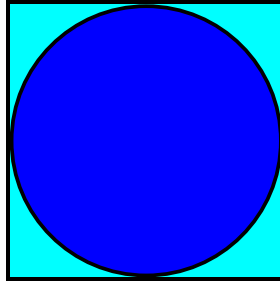
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Calculate the circumference of a circle if the area is  $76.2\text{cm}^2$ .

**30.9** cm ✓

.....

A circle is drawn inside a square so its circumference touches each of the four sides of the square. If the area of the circle is  $77.4\text{cm}^2$  calculate the length of the sides of the square.



**9.93** cm ✓

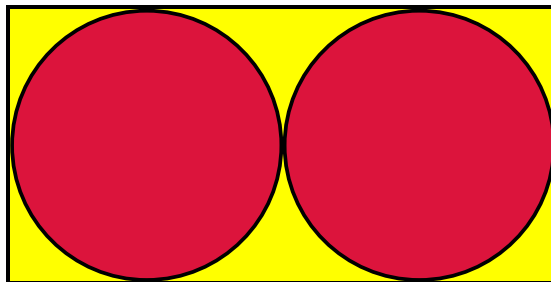
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A different circle is drawn inside a square so its circumference touches each of the four sides of the square. If the area of the circle is  $84\text{cm}^2$  calculate the area of the square.

**107**  $\text{cm}^2$  ✓

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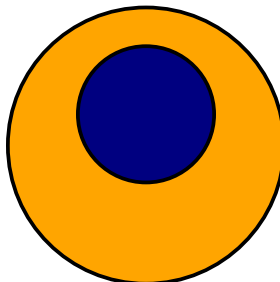
Two circles are drawn inside a rectangle so their circumferences touch each other and three sides of the rectangle. If the areas of the circles are  $2.5\text{cm}^2$  each, calculate the area of the rectangle.



**6.37** cm ✓

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The area of the large circle is  $16.9\text{cm}^2$  and area of the small circle is  $7.5\text{cm}^2$ . How many times larger is the radius of the large circle than the radius of the small circle?



**1.50** ✓

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