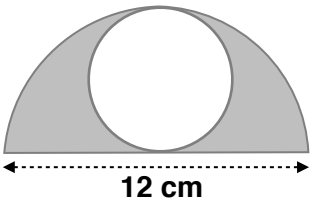
Circles (Worded Problems)

Starter

1. **(Review of last lesson)**
The diagram shows a quarter circle of radius 30 cm. Calculate the perimeter of the shape, giving your answer in terms of π.

2. **(Review of last lesson)**
The diagram shows a circle within a semi-circle.
Find the shaded area.



Notes

With worded questions write down the lengths you know before selecting the correct formula to use.

E.g. 1 A bicycle wheel has diameter 70 cm.

(a) If the wheel makes 300 complete rotations. How far does the bicycle move? Give your answer to the nearest metre.

(b) How many complete rotations are required for the bicycle to travel 1 km?

E.g. 2 A tin of tomatoes has diameter 7.5 cm. The label around the tin overlaps itself by 1 cm. How long is the label?

E.g. 3 Roadsigns have a diameter of 300 mm. Given that the white circle in the centre has a radius of 240 mm calculate the area that is painted red. Give your answer in term of π in cm^2.

Video: Circumference of a circle
Video: Area of a circle
Video: Perimeter of a semi-circle

Solutions to Starter and E.g.s

Exercise

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