

Instructions: Work out the shape maths and use the answer bank to check. Read the Did you know? box. Number the 4 steps in order, tick True or False, match each word to its meaning, then write short answers.

1. Shape maths

Answer bank: **12 cm** **360°** **6.28 cm** **9 cm**

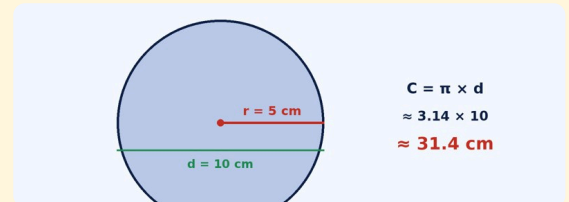
Question	Answer
Radius 6 cm. Diameter?	
Diameter 18 cm. Radius?	
Circumference with $d = 2$ cm ($\pi \approx 3.14$)	
Angle all the way round the centre	

About this topic

A circle is the set of all points the same distance from a centre. That distance is the radius (r). A line through the centre from edge to edge is the diameter (d), and $d = 2 \times r$. The distance around a circle is its circumference. A part of the circumference is an arc.

Did you know?

- π is the same for every circle, from a coin to the planet Earth.
- Some people celebrate Pi Day on 14 March (3/14).
- A circle is the shape with the shortest edge for its area.



Parts of a circle

2. Put the steps in order

Write 1 to 4 in the boxes (1 = first).

- ☐ Choose: Circumference or area?
- ☐ Units: cm for circumference, cm^2 for area
- ☐ Find r : If you have d , halve it to get r
- ☐ Area: $A = \pi \times r \times r$

3. True or false?

The diameter is twice the radius.	☐ True	☐ False
π is exactly 3.	☐ True	☐ False
A chord joins two points on a circle.	☐ True	☐ False
Circumference is measured in cm^2 .	☐ True	☐ False

4. Match up

Write the letter of the right meaning in the box.

Radius	A. The distance around a circle.
Diameter	B. The distance from the centre of a circle to its edge.
Circumference	C. The circumference divided by the diameter, about 3.14.
Pi (π)	D. A line through the centre from edge to edge; twice the radius.

5. Short answers

- What is the circumference of a circle?

- A circle has diameter 20 cm. What is its radius?

- Name two circles in your kitchen.

- Explain in your own words: What is the difference between radius and diameter?

- Stretch: What does π tell us about every circle?

