

Y6 Circles Coordinates

KS2 Y6 Maths · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

A circle has a radius of 5 cm. What is its diameter?

Step 1 · Diameter = $2 \times$ radius

$$2 \times 5$$

Answer: 10 cm

Check: A diameter is two radii end to end ✓

2. Now try one with the steps

A circle has a diameter of 18 cm. What is its radius?

Step 1 · Radius = diameter $\div$ 2

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. A circle has a radius of 7 cm. What is its diameter?

2. A circle has a diameter of 14 cm. What is its radius?

3. A circle has a radius of 2.5 cm. What is its diameter?

4. A circle has a diameter of 9 cm. What is its radius?

5. What is the name for the distance from the centre of a circle to its edge?

6. What is the name for the distance across a circle through its centre?
7. What is the name for the distance all the way round a circle?
8. A pair of compasses is opened to 6 cm. What is the diameter of the circle it draws?
9. A bicycle wheel has a diameter of 60 cm. What is its radius?
10. Two circles, each with a radius of 3 cm, sit side by side and touch. How wide are they altogether?
11. A square fits exactly around a circle of radius 5 cm. How long is each side of the square?
12. A circular table has a diameter of 1 m. What is its radius in centimetres?
13. A straight line joins two points on a circle but does not pass through the centre. Is it a diameter?
14. Four coins, each with a radius of 1.2 cm, are laid in a straight row, touching. How long is the row?
15. Explain why every radius of a circle is the same length.

4. Before you hand it in

Halving the radius to get the diameter.

The diameter is the longer one: $\text{diameter} = 2 \times \text{radius}$, $\text{radius} = \text{diameter} \div 2$.

Setting compasses to 8 cm to draw a circle with diameter 8 cm.

The compasses' gap is the radius. For an 8 cm diameter, set them to 4 cm.

Calling any line across a circle a diameter.

A diameter must go through the centre. Other lines across a circle are shorter.