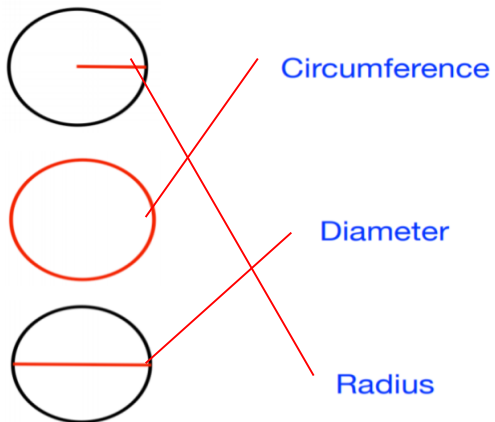
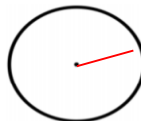


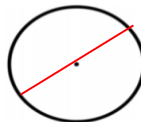
Match each diagram to its label



Draw a radius on the circle



Draw a diameter on the circle



Complete the table.

Radius	Diameter
5.5cm	11cm
6.5cm	13cm
3.75cm	7.5cm

A coin has a radius of 14mm

What is the **diameter** of the coin?

Answer: 28 mm

A hula hoop has a diameter of 54cm

What is the **radius** of the coin?

Answer: 27 cm

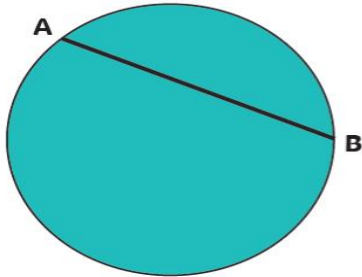
A badge has a diameter of 1.4cm

What is the **radius** of the badge?
Give your answer in millimetres

Answer: 0.7 mm

Jack says this is the diameter of the circle. Kia says this is the radius of the circle.

Who do you agree with? Explain your answer.

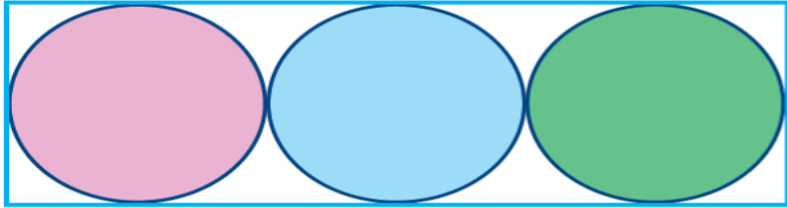


Answer:

Both of them are wrong as to be the diameter the line has to pass through the centre of the circle. And, to be the radius, it has to start from the edge and finish at the centre.

This design is made from a rectangle and three congruent circles.

The length of the rectangle is 15cm. What is the radius of each circle? Explain your answer.



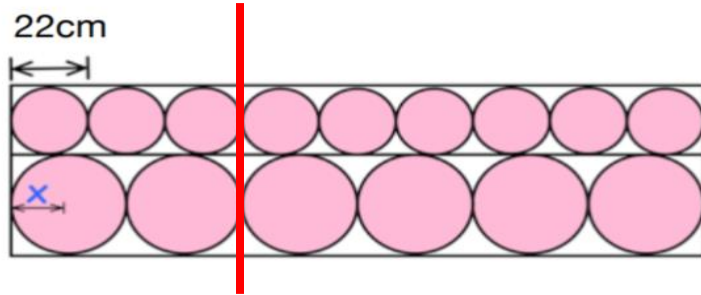
Not to scale

Answer:

Congruent means they are the same size. So, $15 / 3 = 5\text{cm}$ per circle.

$5 / 2 = \mathbf{2.5\text{cm}}$, which is the radius of one circle or of each circle.

Some small circles and large circles fit exactly inside this rectangle.



3 small circles = 2 large circles.

$$22 \times 3 = 66\text{cm}$$

$$66 / 2 = 33\text{cm}$$

$$33\text{cm} / 2 = 16.5\text{cm}.$$

If you didn't notice that they were the same size, then...

9 small circles = 6 large circles.

$$22 \times 9 = 198\text{cm}$$

$$198 / 6 = 33\text{cm}$$

$$33\text{cm} / 2 = 16.5\text{cm}.$$

Work out the **radius** of a large circle

Answer: **16.5 cm**

A 2p coin has a radius of 1.3cm

Caitlyn makes a straight line of 2p coins worth £6



How long is the line?

Give your answer in metres

£6 is the same as $600 \times 1\text{p}$, so £6 is the same as $300 \times 2\text{p}$.

$$300 \times 1.3$$

$$300 \times 1 = 300$$

$$300 \times 0.3 \text{ is also } \frac{3}{10} \text{ of } 300 \text{ (} 300 / 10 \text{ then } \times 3 \text{)} = 90$$

$$300 + 90 = 390 / 100 = 3.9\text{m}$$

(100cm in 1m)

Answer: **3.9** m