Find the Diameter or Radius when given the Circumference

Mr Lund
Maths

Find the Diameter or Radius when given the Circumference

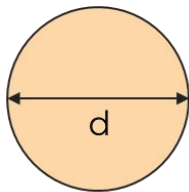1. $C = \pi d$ has been rearranged to make d the subject.

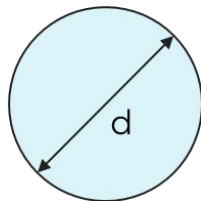$$d = \frac{C}{\pi}$$ | $$\frac{C}{\pi} = d$$ | Both

Circle the correct answer.

2. In terms of π, find the diameter of these circles.
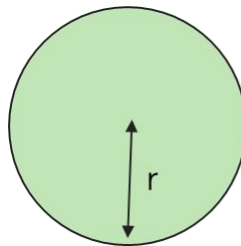
a)

d

Circumference
= 10 m
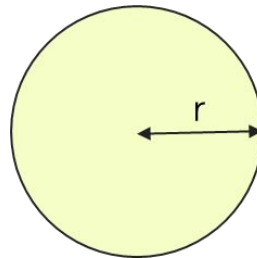
b)

d

Circumference
= 20 cm

3. Find the diameter and radius of these circles to three significant figures.
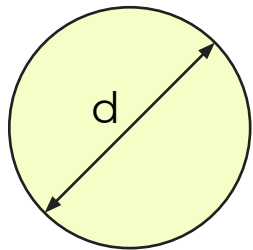
a)

r

Circumference
= 15 mm

b)

r

Circumference
= 8.2 cm

2

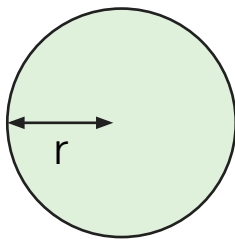# Find the Diameter or Radius when given the Circumference

4. Spot the mistake and correct it.

a) Circumference
= 5.6 m

d

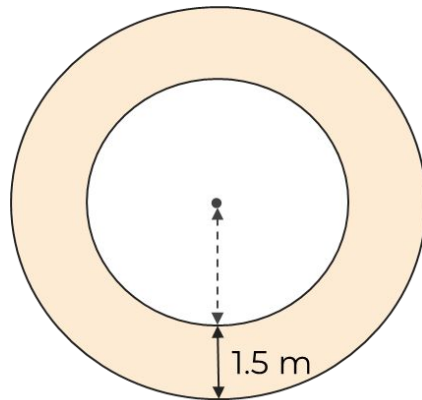$$d = \frac{\pi}{560} \text{ cm}$$

b) Circumference
= 64.8 m

r

$$r = \frac{32.4}{\pi} \text{ m}$$

c) Write each **diameter** to 3 significant figures in metres.

5. Two circles have the same centre.

1.5 m

If the circumference of the outer circle is 8π, what is the circumference of the inner circle to 3 significant figures?

Answers

Find the Diameter or Radius when given the Circumference

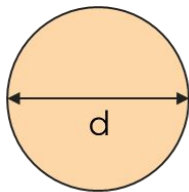1. C = πd has been rearranged to make d the subject.

$d = \dfrac{C}{\pi}$

$\dfrac{C}{\pi} = d$

Both

Circle the correct answer.
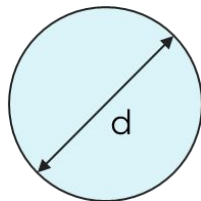
2. In terms of π, find the diameter of these circles.

a)

d

$\dfrac{10}{\pi}$ m

Circumference
= 10 m

b)

d

$\dfrac{20}{\pi}$ m
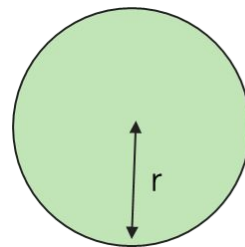
Circumference
= 20 cm

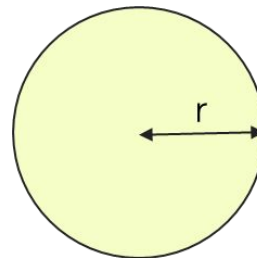3. Find the diameter and radius of these circles to three significant figures.

a)

r

Circumference
= 15 mm

Diameter = 4.77 mm
Radius = 2.39 mm
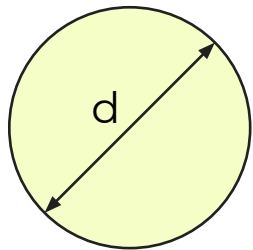
b)

r

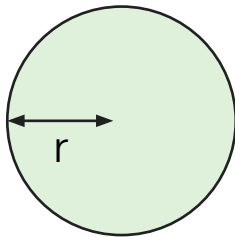Circumference
= 8.2 cm
Diameter = 2.61 cm
Radius = 1.31 cm

Find the Diameter or Radius when given the Circumference

4. Spot the mistake and correct it.

a) Circumference = 5.6 m
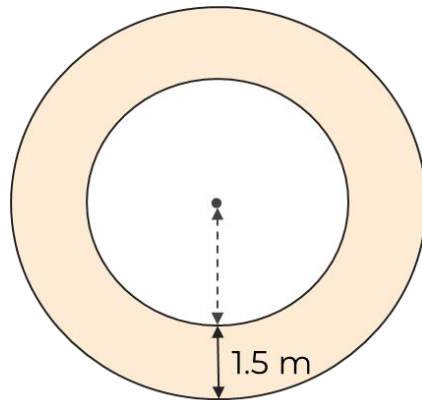
b) Circumference = 64.8 m

d

r

$d = \left(\dfrac{\pi}{560}\right)\text{cm}$

$d = \dfrac{560}{\pi}\text{cm}$

$r = \dfrac{32.4}{\pi}\text{ m}$ ✓

c) Write each **diameter** to 3 significant figures in metres. a) d = 1.78 m b) 10.3 m

5. Two circles have the same centre.

1.5 m

If the circumference of the outer circle is 8π, what is the circumference of the inner circle to 3 significant figures?

5π = 15.7 m