A circle has a diameter of 12 cm.

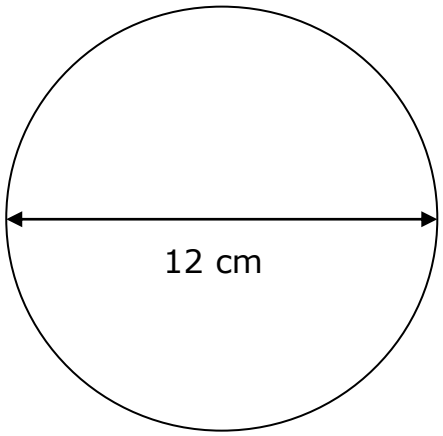

Diagram NOT accurately drawn

Work out the circumference of the circle.

Give your answer correct to 3 significant figures.

$C = \pi \times d$ ✓

we've been given 'd'

$= \pi \times 5$

$= 15.70796327$

$= 15.7 \text{ cm}$

(2)

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Here is a tile in the shape of a semicircle.

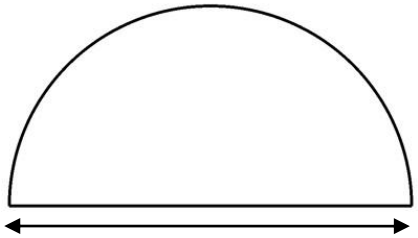


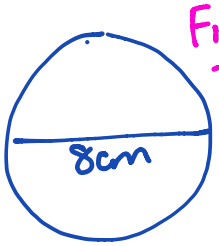
Diagram NOT accurately drawn

The diameter of the semicircle is 8 cm.

Work out the perimeter of the tile.

this word is important!

Give your answer correct to 2 decimal places.



FIRST think about a whole circle

$C = \pi \times d$.

we've been given

$= \pi \times 8$

$= 25.13274123$ (3)

But we only want $\frac{1}{2}$ a circle.

$= 25.13274123 \div 2 = 12.56637061$

so we now have

we need to add ← $= 12.56637061 + 8$

$= 20.56637061$

20.57 cm

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A circle has a radius of 5 cm.

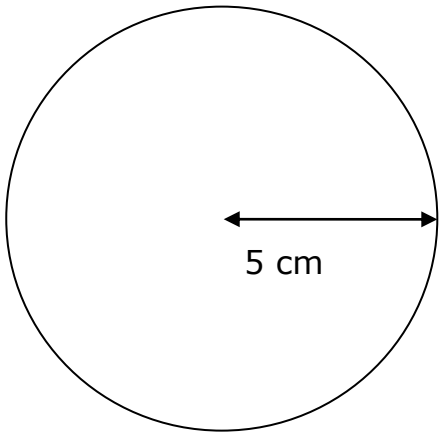

Diagram NOT accurately drawn

Area = πr^2

we have been given this

Work out the area of the circle.

Give your answer correct to 3 significant figures.

$A = \pi r^2$

$= \pi \times 5^2$

$= 78.53981634$

78.5 ..... cm^2

(2)

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The diagram shows a circular pond with a path around it.

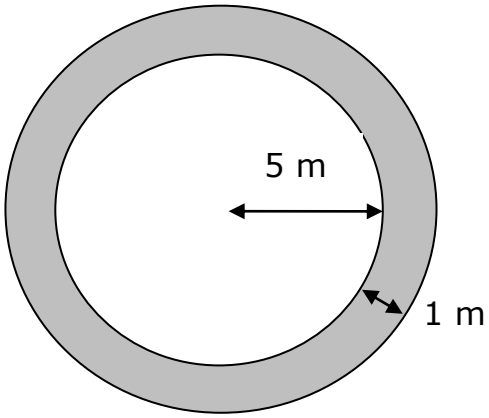


Diagram NOT accurately drawn

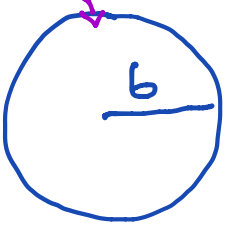
The pond has a radius of 5 m.

The path has a width of 1 m.

Work out the area of the path.

Give your answer correct to 3 significant figures.

BIG CIRCLE

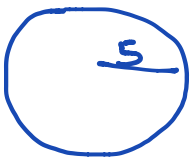


$A = \pi r^2$

$= \pi \times 6^2$

$= 113.0973355\ m^2$

LITTLE CIRCLE



$A = \pi r^2$

$= \pi \times 5^2$

$= 78.53981634\ m^2$

area of path = Big circle − little circle

$= 34.55751916\ m^2$

Five and above round up... 4 and below leave alone

Don't round your numbers too early.

34.6

34.6 ..... m^2

(3)

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