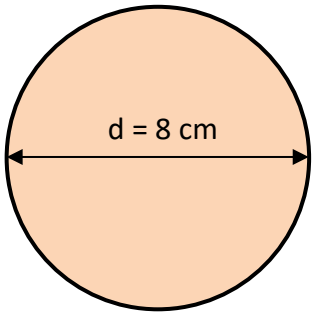
CIRCLES

Name:

BAM Indicator: Apply the formulae for circumference and area of a circle

1. **F**

a) Calculate the circumference and area of this circle.



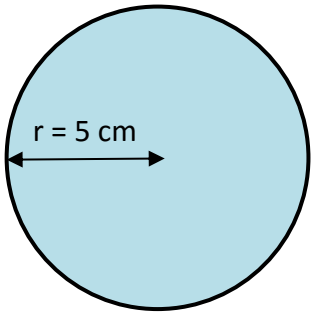
i. Circumference:

_____ cm

ii. Area:

_____ cm^2

b) Calculate the circumference and area of this circle.



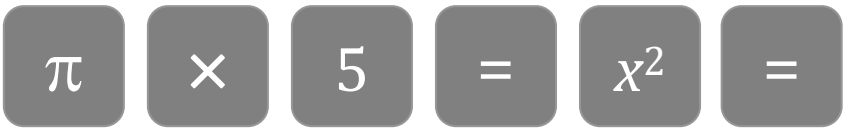
i. Circumference:

_____ cm

ii. Area:

_____ cm^2

2. Jess is finding the area of a circle of radius 5 cm. She types the following into her calculator: **M**



Will this give the correct answer? Explain your answer.

3. a) Find the diameter of a circle with circumference 208 centimetres **P**

_____cm

b) Find the radius of a circle with area 345 square centimetres

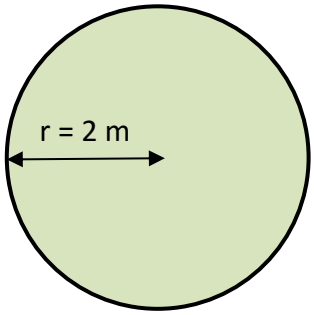
_____cm

4. The Large Hadron Collider is the world's largest particle accelerator. It is a circular tunnel with a circumference of 27 kilometres. At full speed, protons travel around this tunnel 11,000 times every second.
   What is the diameter of the Large Hadron Collider?

   _____km

A

5. Kyle is finding the area of this circle. He writes



$A = \pi \times d$
$= \pi \times 2 \times 2$
$= \pi \times 4$
$= 12.57\ m^2$ *to 2 decimal places*

Comment on Kyle's solution

R

Overall, I think my success level is:	Low ○ ○ ○ ○ High

F = Fluency R = Reasoning P = Problem-solving A = Application M = Misconception

Q	**CIRCLES**	☺	☹
	I know the formulae for circumference and area of a circle		
	I can find the radius when the diameter is given		
	I can find the diameter when the radius is given		
	I can find the circumference of a circle		
	I can find the area of a circle		
	I can round answers appropriately		
	I can state the correct units of a solution to a problem involving circles		
	I can find the radius of a circle when area is given		
	I can find the diameter of a circle when circumference is given		
	I can use a scientific calculator when solving problems involving circles		

Improvements I could make:

Mathematical presentation	Method	Accuracy	Units