iRAT / tRAT : Circles and Perimeter

Question 1

The diameter of a circle goes through it's_____.

A **Angle** **B** **Center** **C** **Circumference** **D** **Pi**

Question 2

The circumference of a circle is

A **2 x π x r** **B** **π x r** **C** **π x r x r** **D** **2 x π x r x r**

Question 3

Which is true about the radius and diameter?

A The radius and diameter can sometimes be equal

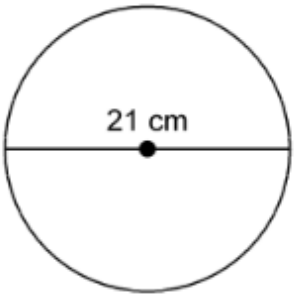
B The diameter is half the size of the radius

C The radius is two times the size of the diameter

D The diameter is two times the size of the radius

Question 4

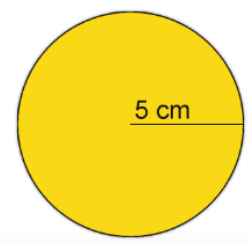
Estimate the circumference of this circle



A **63cm** **B** **331cm** **C** **24cm** **D** **32cm**

Question 5

What is the circumference of this circle?

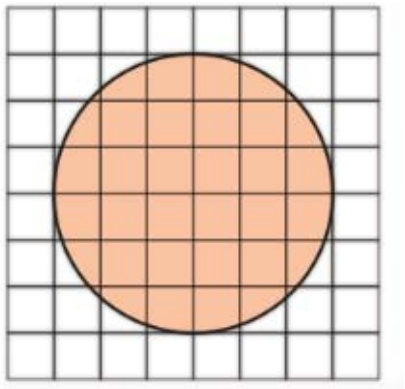


A **78.5cm** **B** **15.7cm**

C **31.4cm** **D** **28.26cm**

Question 6

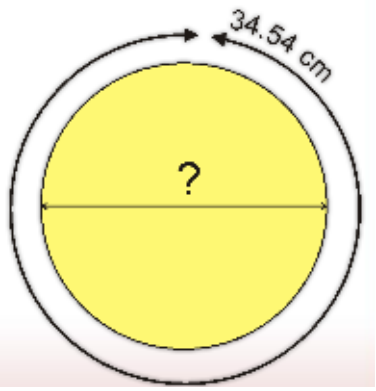
What is the circumference of the following circle?



A **28.24 units** **B** **18.84 units** **C** **9.42 units** **D** **21.98 units**

Question 7

If a circle has a circumference of 34.54cm, how long must the circle's diameter be?



A **10cm** **B** **11cm** **C** **12cm** **D** **13cm**

Question 8

What is the circumference of a tire with a diameter of 12 inches?

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A **48** **B** **36** **C** **24** **D** **6**

Question 9

What is the radius of a circle with a diameter of 36 inches?

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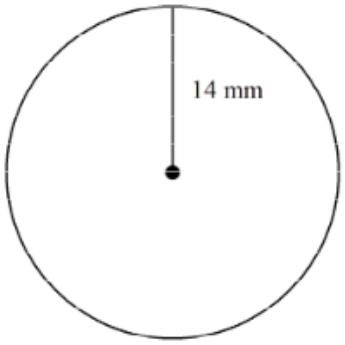
A **18** **B** **16** **C** **6** **D** **12**

Question 10

Find the circumference and area of the circle. Use 3.14 for π, and round your answer to the nearest tenth.

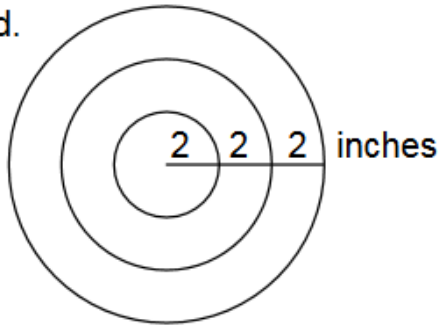


a. $C = 175.8$ mm; $A = 2461.8$ mm^2
b. $C = 87.9$ mm; $A = 615.4$ mm^2
c. $C = 2461.8$ mm; $A = 175.8$ mm^2
d. $C = 615.4$ mm; $A = 87.9$ mm^2

Question 11

Calculate the area of the outer ring of the dartboard.

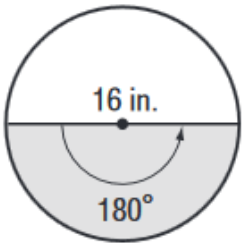
A. 15.7 square inches
B. 28.2 square inches
C. 62.8 square inches
D. 113.1 square inches



Question 12

Ellis draws a circle with a diameter of 16 inches, and shades one region of the circle. Find the approximate area of the sector.

A 100 in^2 **C** 402 in^2
B 201 in^2 **D** 804 in^2

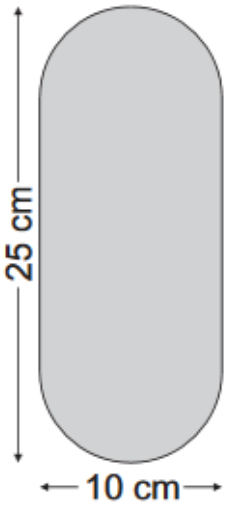


Question 13

A quarter circle with a radius of 6cm will have a total perimeter of approximately:

A **21.42cm** **B** **12cm** **C** **9.42cm** **D** **37.70cm**

Question 14



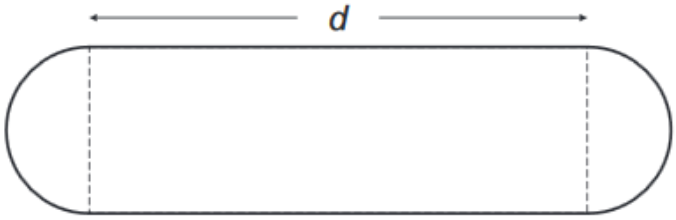
$\pi = 3.14$

What is the area of this shape?

$307\ cm^2$	$228.5\ cm^2$	$564\ cm^2$	$328.5\ cm^2$
A	**B**	**C**	**D**

Question 15

The diagram shows a 400-metre running track.



To find the radius of the semicircular ends of a track like this,

you use the formula $r = \frac{200 - d}{\pi}$

where r is the radius and d is the length of the straights as marked in the diagram.

If the straights are each 75 m long, the radius is closest to

A 16m **B** 40m **C** 152m **D** 176m