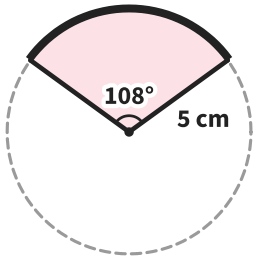
Arc Length

1

Find the arc length. Give your answer to 1 decimal place.



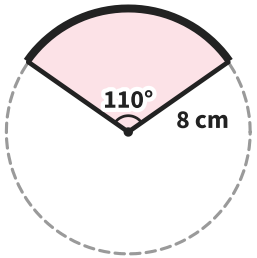
Arc = $\frac{108}{360}$ × π × 10 (circumference)

(108: fraction of the circle)

Answer _____ cm

2

Find the arc length. Give your answer to 1 decimal place.



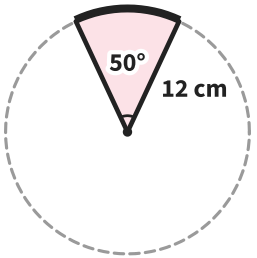
Arc = $\frac{110}{360}$ × π × ____ (circumference)

(110: fraction of the circle)

Answer _____ cm

3

Find the arc length. Give your answer to 1 decimal place.



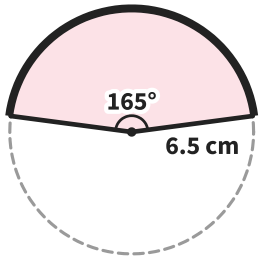
Arc = $\frac{\quad}{360}$ × π × ____ (circumference)

(fraction of the circle)

Answer _____ cm

4

Find the arc length. Give your answer to 1 decimal place.



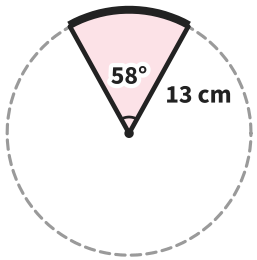
Arc = $\frac{\quad}{360}$ × π × ____ (circumference)

(fraction of the circle)

Answer _____ cm

5

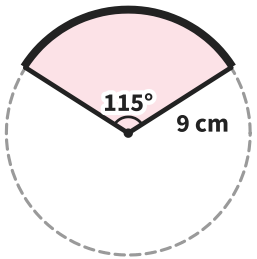
Find the arc length. Give your answer to 2 decimal places.



Answer _____ cm

6

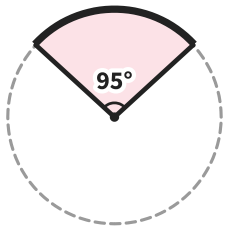
Find the perimeter of the sector. Give your answer to 1 decimal place.



Perimeter _____ cm

7

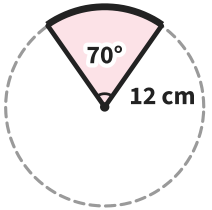
This sector is cut from a circle with a diameter of 16 cm. Find the perimeter of the sector. Give your answer to 1 decimal place.



Perimeter _____ cm

8

Amara works out the arc length as $70/360 \times \pi \times 12 = 7.3$ cm.
Explain her mistake, then find the arc length to 1 decimal place.

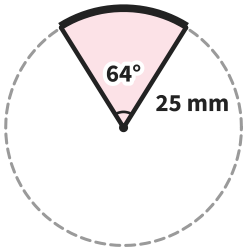


Answer _____ cm

Arc Length *further practice*

9

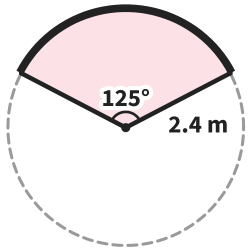
Find the arc length. Give your answer to 1 decimal place.



Answer _____ mm

10

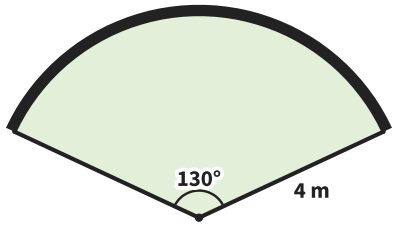
Find the arc length. Give your answer to 2 decimal places.



Answer _____ m

11

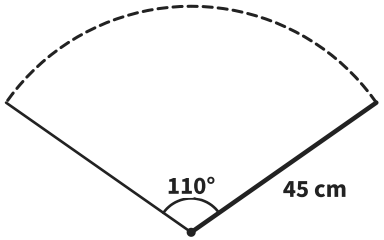
A lawn is a sector of a circle with a radius of 4 m and an angle of 130°.
Edging goes all the way round the lawn.
How much edging is needed?
Give your answer to 1 decimal place.



Answer _____ m

12

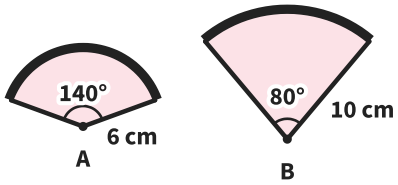
The tip of a windscreen wiper is 45 cm from its pivot. The wiper turns through 110°. How far does the tip travel? Give your answer to 1 decimal place.



Answer _____ cm

13

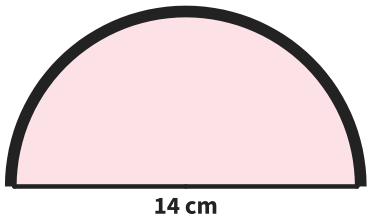
Which sector has the bigger perimeter, A or B? Show your working.



Answer _____

14

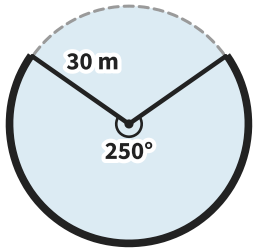
This semicircle has a diameter of 14 cm. Find its perimeter. Give your answer to 1 decimal place.



Perimeter _____ cm

15

Sam walks round the edge of a circular pond with a radius of 30 m, through an angle of 250° at its centre. How far does Sam walk? Give your answer to 1 decimal place.



Answer _____ m

16

Is Leah right? Use sectors with a radius of 5 cm and angles of 60° and 120° to explain.

> **Leah**
> If I double the angle of a sector, its perimeter doubles too.

Answer _____