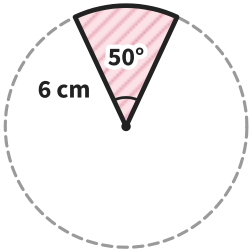
Area of a Sector

1

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



Area = $\frac{\text{angle}}{360} \times \pi \times r^2$

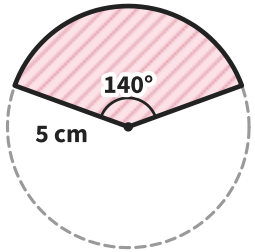
angle = 50° **r =** 6 cm

Area = $\frac{50}{360} \times \pi \times 6^2$

Answer _____ cm²

2

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



Area = $\frac{\text{angle}}{360} \times \pi \times r^2$

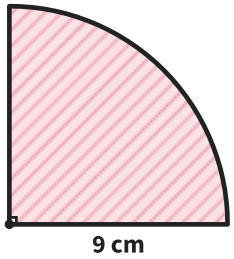
angle = 140° **r =** 5 cm

Area = _____

Answer _____ cm²

3

This shape is a quarter circle. Find its area.
Give your answer to 1 decimal place.



Area = $\frac{\text{angle}}{360} \times \pi \times r^2$

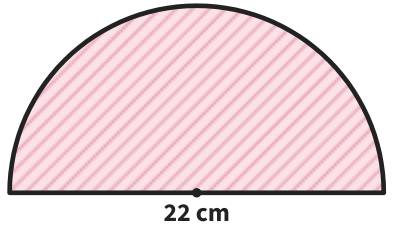
angle = _____ **r =** _____

Area = _____

Answer _____ cm²

4

This shape is a semicircle. Find its area.
Give your answer to 1 decimal place.



Area = $\frac{\text{angle}}{360} \times \pi \times r^2$

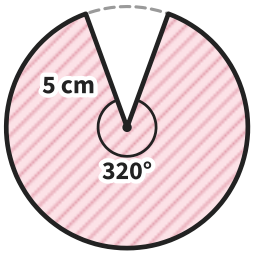
angle = _____ **r =** _____

Area = _____

Answer _____ cm²

5

Find the area of the sector.
Give your answer to 2 decimal places.



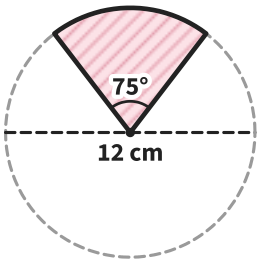
_____

_____

Answer _____ cm²

6

The circle has a diameter of 12 cm.
Find the area of the shaded sector.
Give your answer to 1 decimal place.



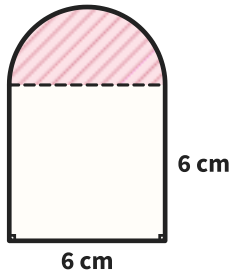
_____

_____

Answer _____ cm²

7

The shape is a square with a semicircle on one side. Find the area of the shape.
Give your answer to 1 decimal place.



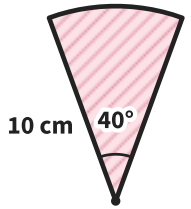
_____

_____

Answer _____ cm²

8

A sector has an angle of 40° and a radius of 10 cm. Leah works out its area as $\frac{40}{360} \times \pi \times 20 = 7.0$ cm². Explain her mistake, then find the area to 1 decimal place.



_____

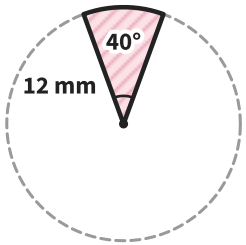
_____

Answer _____ cm²

Area of a Sector *further practice*

9

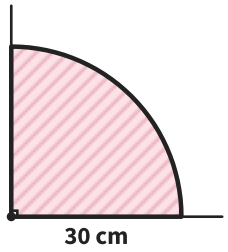
Find the area of the sector.
Give your answer to 1 decimal place.



Answer _____ mm²

10

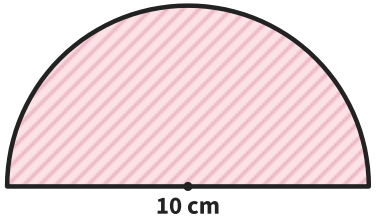
A corner shelf is a quarter circle with a radius of 30 cm. Find the area of the top of the shelf. Give your answer to 1 decimal place.



Answer _____ cm²

11

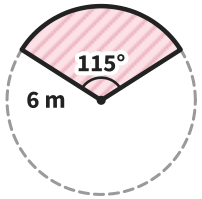
A protractor is a semicircle that measures 10 cm across its straight edge.
Find its area. Give your answer to 2 decimal places.



Answer _____ cm²

12

A garden lamp lights up a sector of a patio. The sector has an angle of 115° and a radius of 6 m. Find the area it lights up.
Give your answer to 1 decimal place.



Answer _____ m²

13

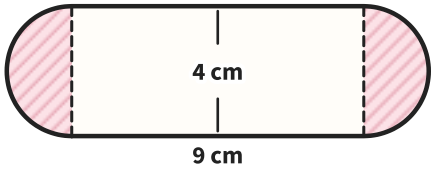
Which sector has the bigger area, A or B? By how much? Give your answer to 1 decimal place.



Answer _____

14

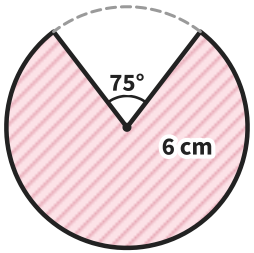
The shape is a rectangle with a semicircle on each end. Find its area.
Give your answer to 1 decimal place.



Answer _____ cm²

15

A sector of 75° is cut out of a circle of radius 6 cm. Find the area of the shaded part that is left. Give your answer to 1 decimal place.



Answer _____ cm²

16

Is Sam right? Use quarter circles with radii of 4 cm and 8 cm to explain.

> **Sam**
> If I double the radius of a sector and keep the angle the same, its area doubles.

Answer _____