



Name: _____ **Date:** _____ **Score:** _____ / 43

1 A sector of a circle has radius 7.5 cm and angle 140° .

a. Work out the arc length of the sector.

b. Work out the area of the sector.

Give each answer correct to 3 significant figures.

(4 marks)

Answer _____

2 A sector of a circle has radius 6 cm and area $15\pi \text{ cm}^2$.

Work out the angle of the sector.

(2 marks)

Answer _____

3 A sector of a circle has radius 9 cm and angle 120° .

Work out the arc length of the sector.

Give your answer in terms of π .

(2 marks)

Answer _____

4 A sector of a circle has radius 5 cm.

The arc length of the sector is 8.4 cm.

Find the angle of the sector.

Give your answer correct to 1 decimal place.

(3 marks)

Answer _____

- 5 A sector of a circle has radius 6 cm.
The perimeter of the sector is 42 cm.
The angle of the sector is reflex.
Work out the angle of the sector.
Give your answer correct to 1 decimal place.

(3 marks)

Answer _____

- 6 a. A quarter circle has radius 10 cm. Work out its area. Give your answer in terms of π .
b. A semicircle has diameter 14 cm. Work out its area. Give your answer in terms of π .

(3 marks)

Answer _____

- 7 A sector of a circle has angle 45° .
The arc length of the sector is 3π cm.
Work out the area of the sector.
Give your answer in terms of π .

(4 marks)

Answer _____

- 8 A sector of a circle has angle 120° and area 48π cm².
Work out the perimeter of the sector.
Give your answer correct to 3 significant figures.

(4 marks)

Answer _____

9 A sector of a circle has radius 8 cm and angle 75° .

Work out the perimeter of the sector.

Give your answer correct to 3 significant figures.

(3 marks)

Answer _____

10 A lawn is in the shape of a sector of a circle with radius 6 m and angle 210° .

A gardener puts edging all the way round the edge of the lawn.

Work out the length of edging needed.

Give your answer correct to 3 significant figures.

(3 marks)

Answer _____

- 11** OAB is a sector of a circle, centre O, with radius 10 cm and angle $AOB = 60^\circ$.
The chord AB divides the sector into a triangle and a segment.
Calculate the area of the segment.
Give your answer correct to 3 significant figures.

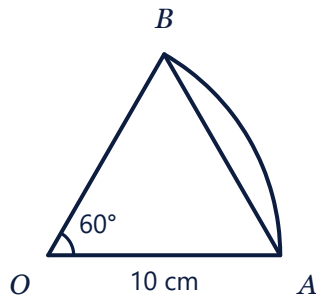


Diagram NOT accurately drawn

(4 marks)

Answer _____

- 12** A sector of a circle has angle 100° .
The arc length of the sector is 5π cm.
Find the radius of the sector.

(3 marks)

Answer _____

- 13 A sector of a circle has radius x cm and angle 144° .
A circle has radius 6 cm.
The area of the sector is equal to the area of the circle.
Work out the value of x .
Give your answer in the form $k\sqrt{10}$.

(5 marks)

Answer _____

End of questions | Total 43 marks