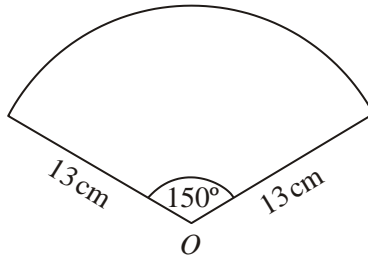**1.**

Diagram **NOT** accurately drawn

The diagram shows a sector of a circle, centre O.
The radius of the circle is 13 cm.
The angle of the sector is 150°.

Calculate the area of the sector.
Give your answer correct to 3 significant figures.

.... cm^2
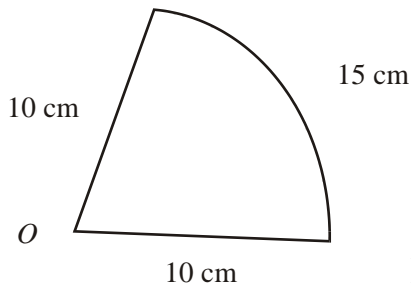**(Total 2 marks)**

2.

Diagram **NOT** accurately drawn

The diagram shows a sector of a circle, centre O, radius 10 cm.
The arc length of the sector is 15 cm.

Calculate the area of the sector.

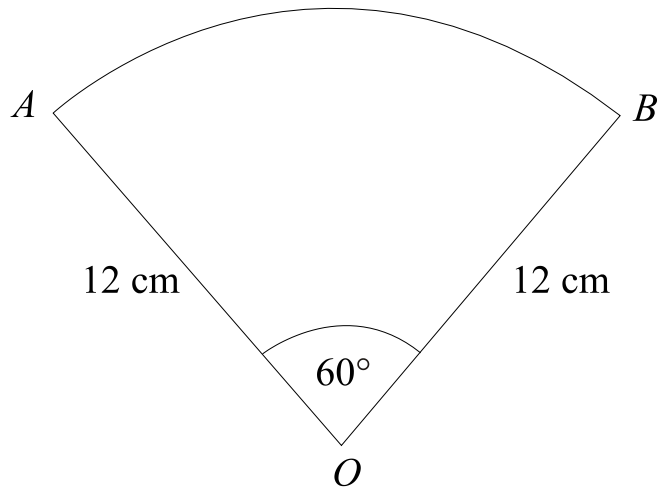.......................... cm^2
(Total 4 marks)

3.

Diagram **NOT** accurately drawn

OAB is a sector of a circle, centre *O*.
Angle *AOB* = 60º.
OA = *OB* = 12 cm.

Work out the length of the arc *AB*.
Give your answer in terms of π.

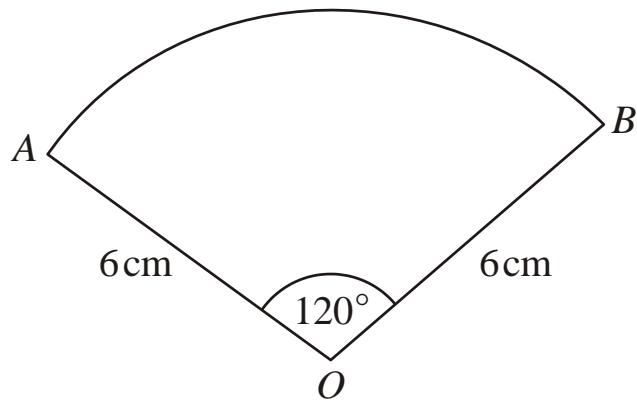..................................... cm
(Total 3 marks)

4.

Diagram **NOT** accurately drawn

The diagram shows a sector of a circle, centre *O*.
The radius of the circle is 6 cm.
Angle *AOB* = 120°.

Work out the **perimeter** of the sector.
Give your answer in terms of π in its simplest form.

.... cm

(Total 3 marks)

5.

B

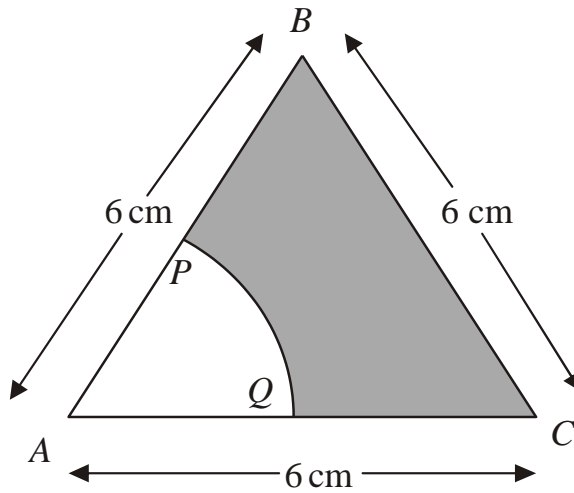6 cm   6 cm

P

Q

A   6 cm   *C*

Diagram **NOT** accurately drawn

The diagram shows an equilateral triangle *ABC* with sides of length 6 cm.

P is the midpoint of *AB*.
Q is the midpoint of *AC*.
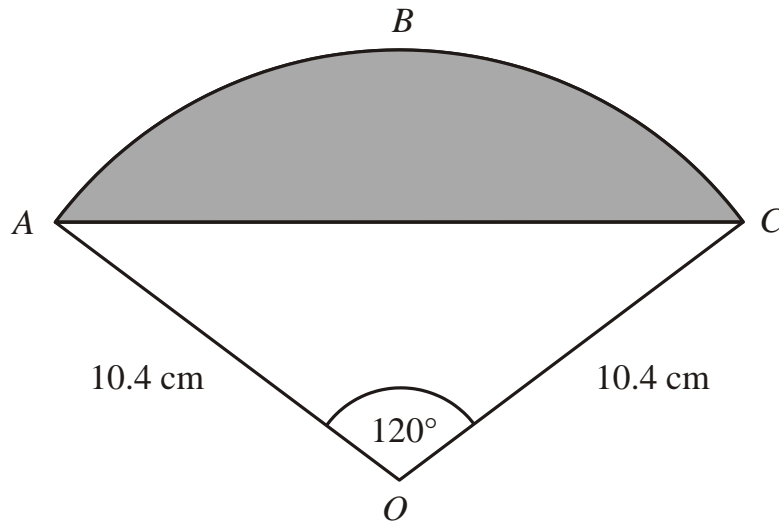*APQ* is a sector of a circle, centre *A*.

Calculate the area of the shaded region.
Give your answer correct to 3 significant figures.

.... cm^2

(Total 4 marks)

6.

Diagram **NOT** accurately drawn

The diagram shows a sector *OABC* of a circle with centre *O*.
OA = *OC* = 10.4 cm.
Angle *AOC* = 120°.

(a) Calculate the length of the arc *ABC* of the sector.
Give your answer correct to 3 significant figures.

.....................................cm

(3)

(b) Calculate the area of the shaded segment *ABC*.
Give your answer correct to 3 significant figures.

.....................................cm^2

(4)
(Total 7 marks)

7. The diagram shows a sector of a circle with centre O.
The radius of the circle is 8 cm.

PRS is an arc of the circle.
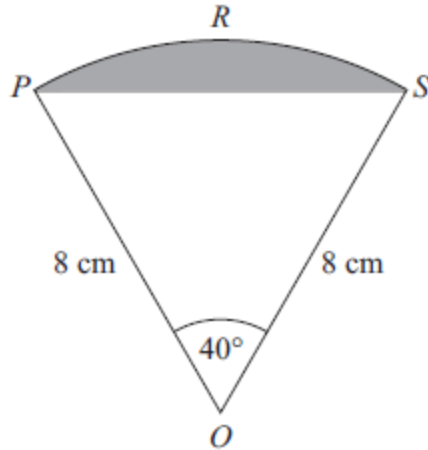*PS* is a chord of the circle.
Angle *POS* = 40°

Diagram **NOT**
accurately drawn

Calculate the area of the shaded segment.
Give your answer correct to 3 significant figures.

.... cm^2
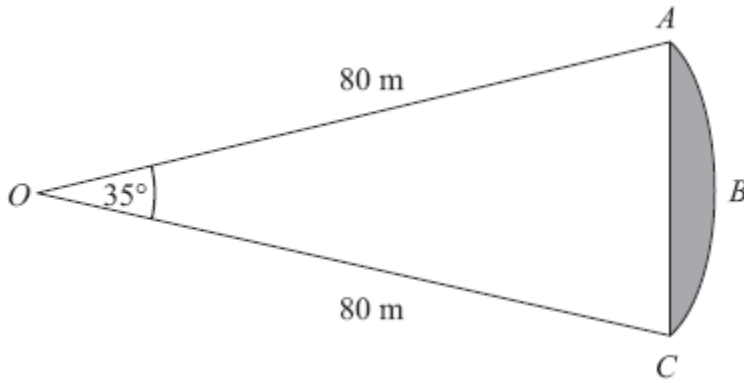
(Total 5 marks)

8.

Diagram **NOT** accurately drawn

80 m

O 35°

A

B

C

80 m

ABC is an arc of a circle centre *O* with radius 80 m.
AC is a chord of the circle.
Angle *AOC* = 35°.

Calculate the area of the shaded region.
Give your answer correct to 3 significant figures.

.... m²

(Total 5 marks)