

Question 1

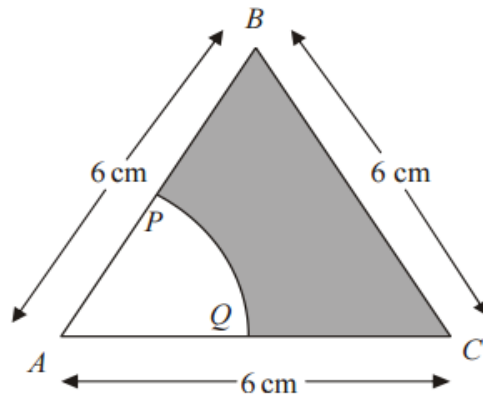


Diagram **NOT** accurately drawn

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 .

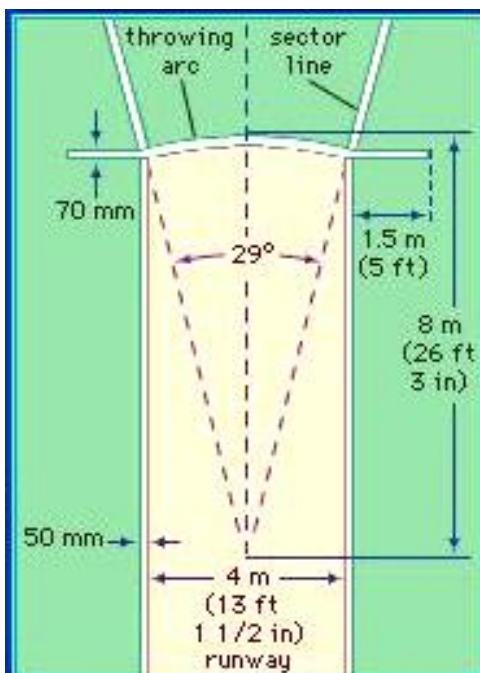
Calculate the area of the shaded region.

Give your answer correct to 3 significant figures.

2 marks

Question 2

The throwing area for the javelin in an athletics competition is a sector with a radius of 8m and an angle at the centre of 29°

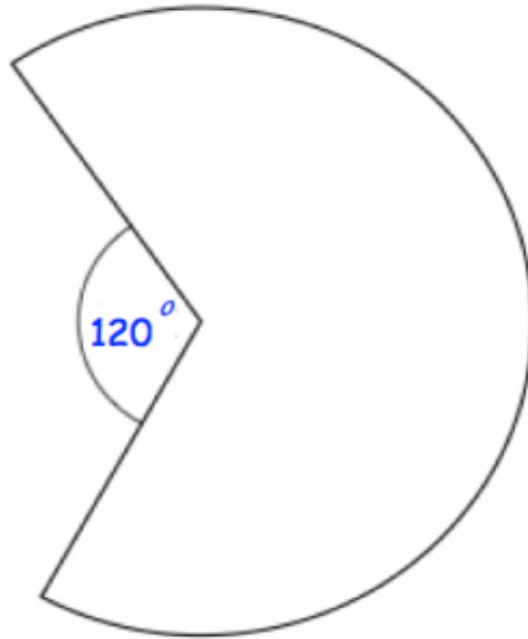


a. Calculate the area of the sector, in square metres, correct to four significant figures.

b. Calculate the length of the throwing arc in metres, correct to two decimal places.

2 marks

Question 3



The area of the major sector is 180cm^2 .

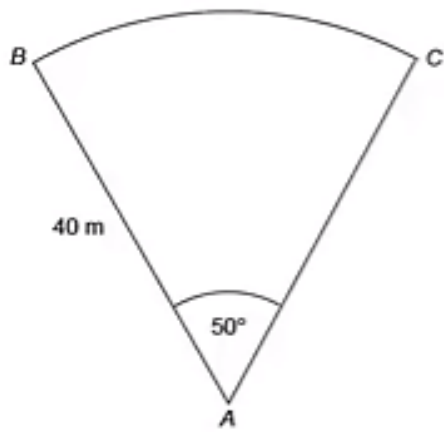
Calculator the perimeter of the major sector.
Give your answer to 1 decimal place.

4 marks

Question 4

Fred is marking out the sector of a circle on a sports field as shown. He puts tape around the perimeter. Tape comes in 3 m rolls.

How many rolls does he need? Show all your reasoning.

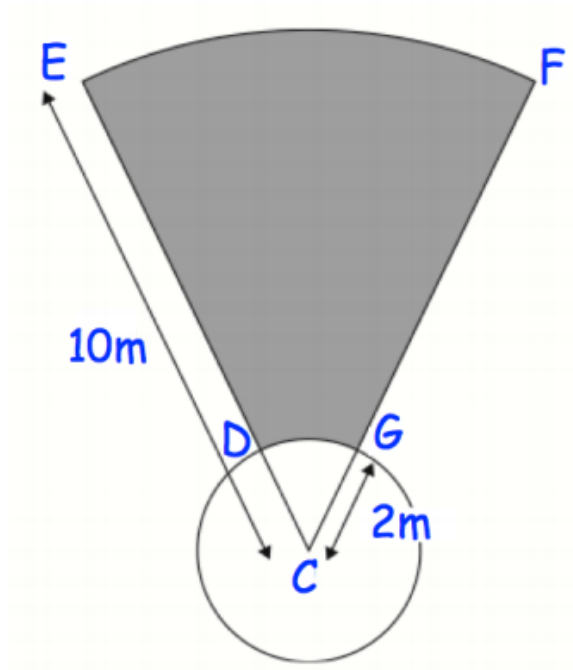


2 marks

Question 5

The shot putt throwing area, on a school's sport field, is formed from the sectors
✓ of two circles with centre C.

The area of sector CDG is 1.2m^2 .



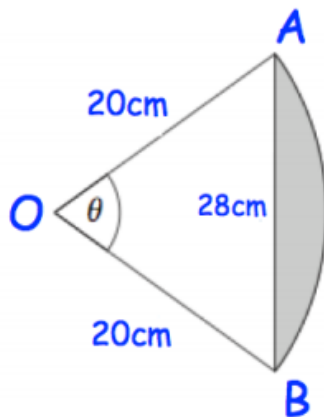
Calculate the area of the shaded region.

Give your answer correct to 3 significant figures.

2 marks

Question 6

The diagram shows a triangle OAB and the arc AB of a circle whose centre is O and whose radius is 20cm.



- (a) Find the size of the angle θ .

.....°
(3)

- (b) Find the length of the arc AB

.....cm
(3)

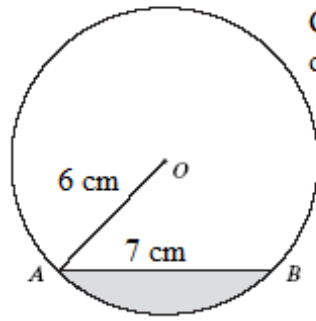
- (c) Find the area of the shaded segment to the nearest cm^2 .

Question 7



AB is a chord of a circle, centre O , radius 6 cm. $AB = 7$ cm
Calculate the area of the shaded segment. (6 marks)

Give your answer to the nearest square cm.



Question 8

3 marks

Find the area of the segment APB shown in Fig 4, if radius of circle is 14cm and the central angle is 60° .

Also, find the area of the corresponding major segment.

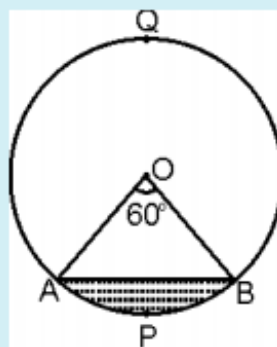


FIG. 4

3 marks