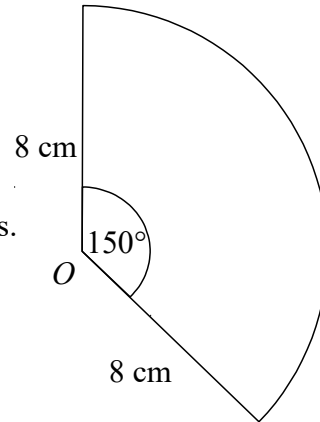


- 1 The diagram shows a sector, centre  $O$ .  
The radius of the circle is 8 cm.  
The angle of the sector is  $150^\circ$ .

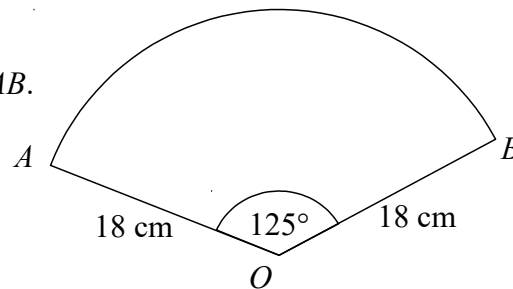
Calculate the area of the sector.  
Give your answer correct to 3 significant figures.



(2 marks)

- 2  $AOB$  is a sector of a circle, centre  $O$  and radius 18 cm.  
The angle of the sector is  $125^\circ$ .

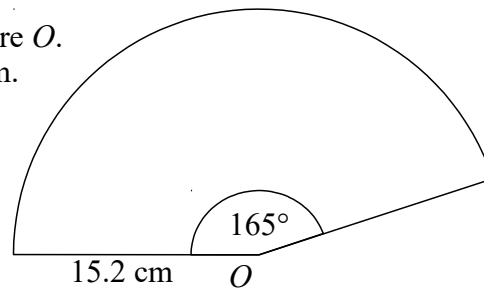
Calculate the length of the arc  $AB$ .  
Give your answer in terms of  $\pi$ .



(2 marks)

- 3 The diagram shows a sector, centre  $O$ .  
The radius of the circle is 15.2 cm.  
The angle of the sector is  $165^\circ$ .

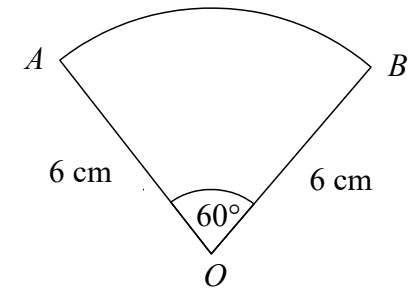
Calculate the area of the sector.  
Give your answer correct to 3 significant figures.



(3 marks)

- 4  $AOB$  is a sector of a circle, centre  $O$  and radius 6 cm.  
The angle of the sector is  $60^\circ$ .

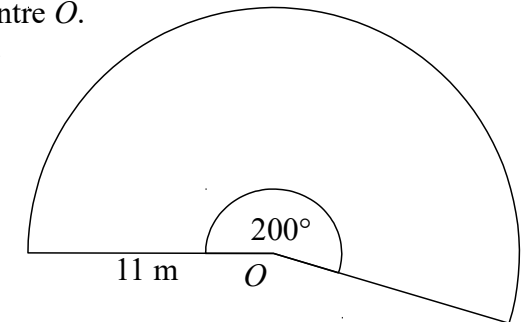
Find the length of the arc  $AB$ .  
Give your answer in terms of  $\pi$ .



(2 marks)

- 5 The diagram shows a sector, centre  $O$ .  
The radius of the circle is 11 m.  
The angle of the sector is  $200^\circ$ .

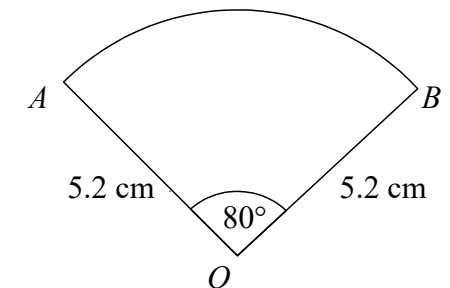
Calculate the area of the sector.  
Give your answer correct to 3 significant figures.



(2 marks)

- 6  $AOB$  is a sector of a circle, centre  $O$  and radius 5.2 cm.  
The angle of the sector is  $80^\circ$ .

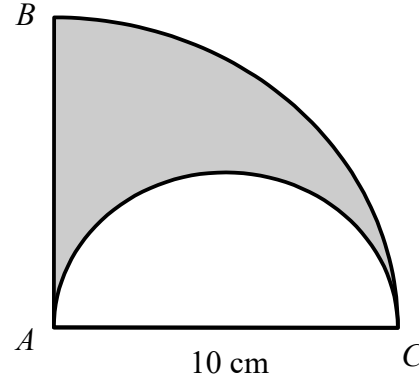
Find the **perimeter** of the sector.  
Give your answer correct to 3 significant figures.



(3 marks)

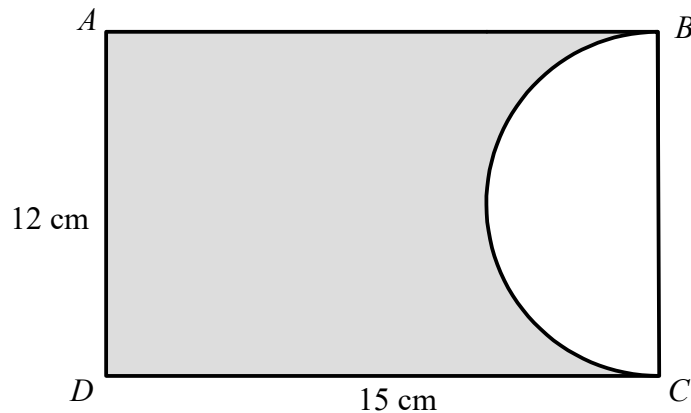
- 7  $BAC$  is a sector of a circle, centre  $A$ .  
 $AC$  is the diameter of a semi circle.  
 $AC$  is 10 cm.

Find the area of the shaded region.  
 Give your answer in terms of  $\pi$ .



(4 marks)

- 8 The diagram shows a rectangle,  $ABCD$ , and a semi circle.  
 $BC$  is the diameter of a semi circle.

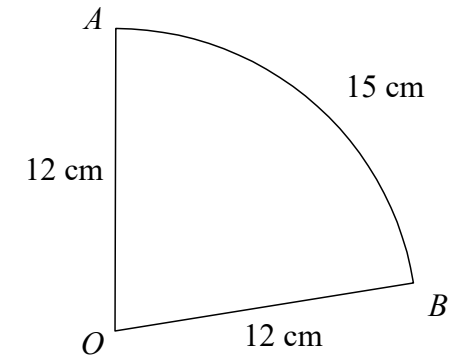


Calculate the percentage of the area of the rectangle that is shaded.  
 Give your answer correct to 1 decimal place.

(4 marks)

- 9  $AOB$  is a sector of a circle, centre  $O$  and radius 12 cm.  
 The length of arc  $AB$  is 15 cm.

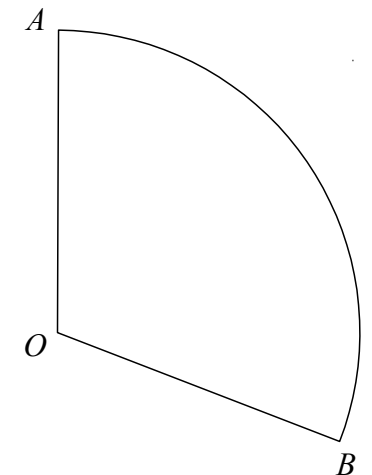
Find the area of the sector.



(4 marks)

- 10  $AOB$  is a sector of a circle, centre  $O$  and radius 9 cm.  
 The length of arc  $AB$  is  $6\pi$  cm.

Find the area of the sector.  
 Give your answer in terms of  $\pi$ .



(4 marks)