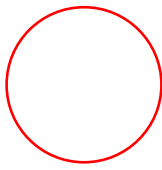
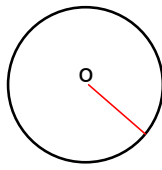


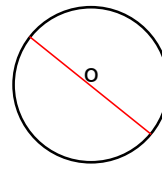
1 Name the red parts of the circles below.



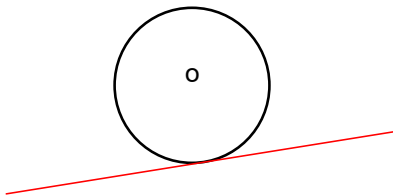
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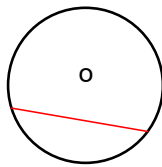
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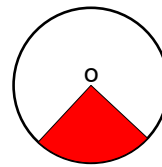
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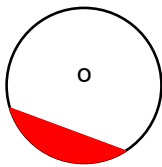
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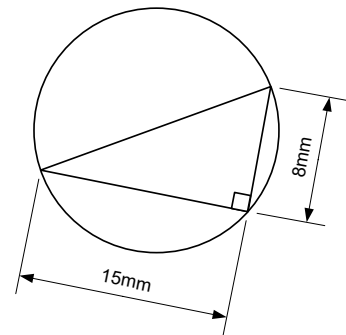
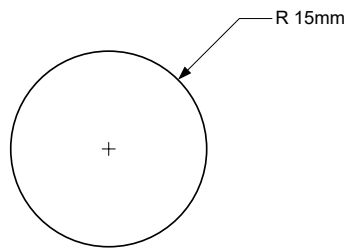
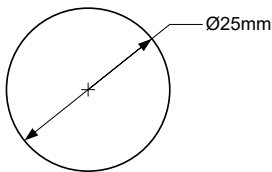


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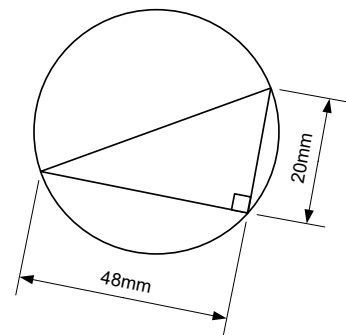
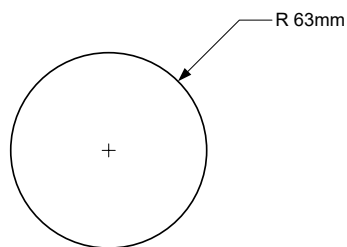
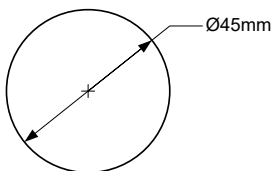


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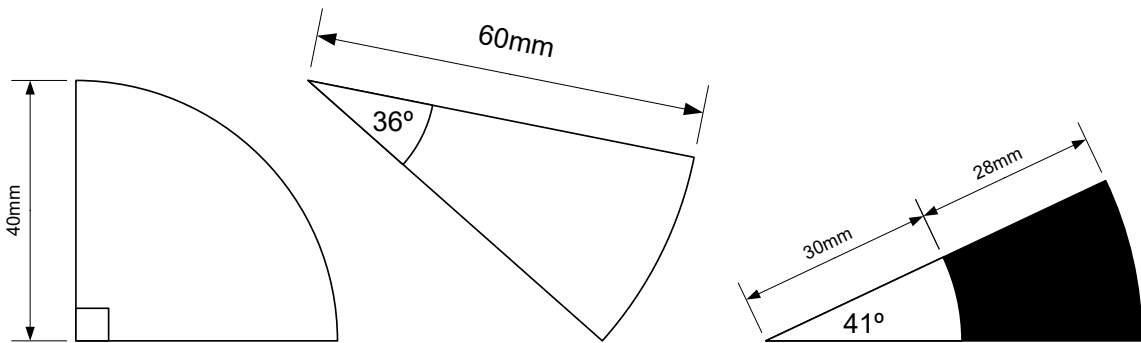
2 Calculate the circumference of the circles below.



3 Calculate the area of the circles below.

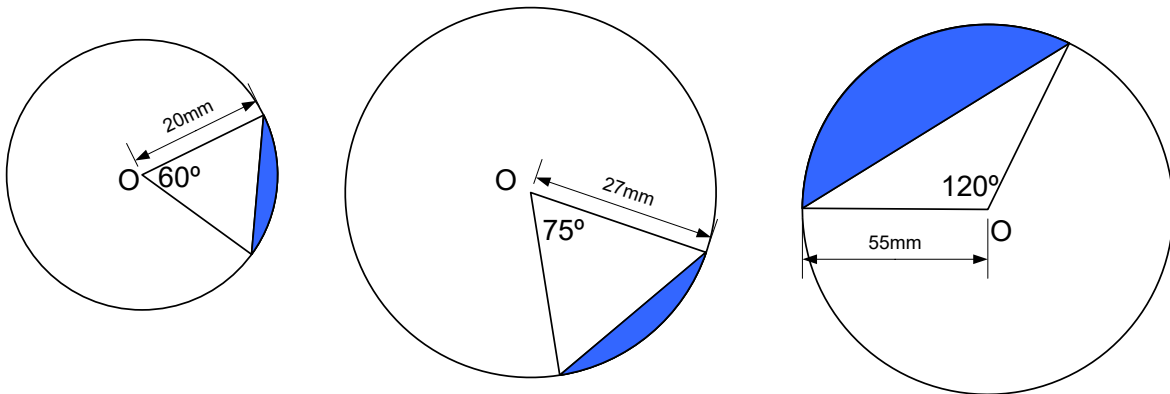


4 Calculate the perimeter and the area of the sectors shown below.



Calculate the area and perimeter of the shaded region.

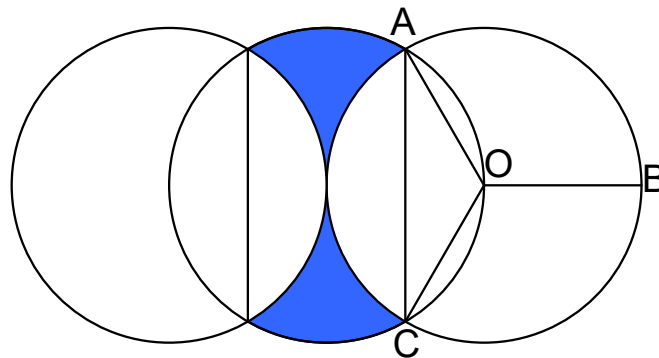
5 Find the area of the segments shown



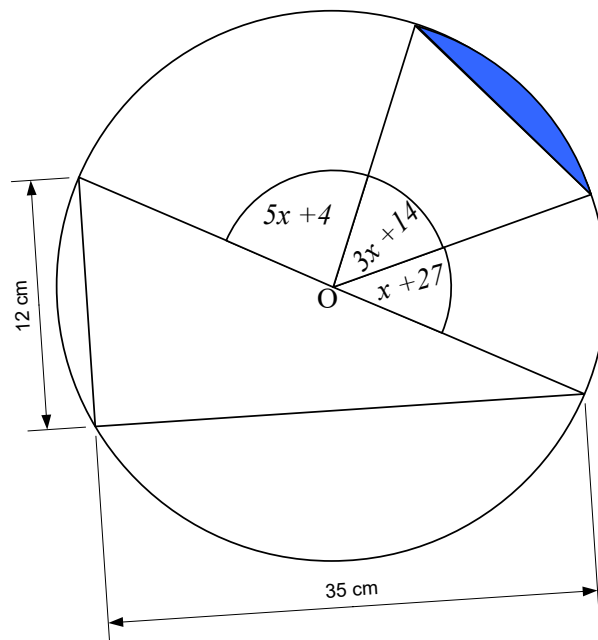
6 Angles  $AOB = BOC = COA$

All circles have a diameter of 24cm.

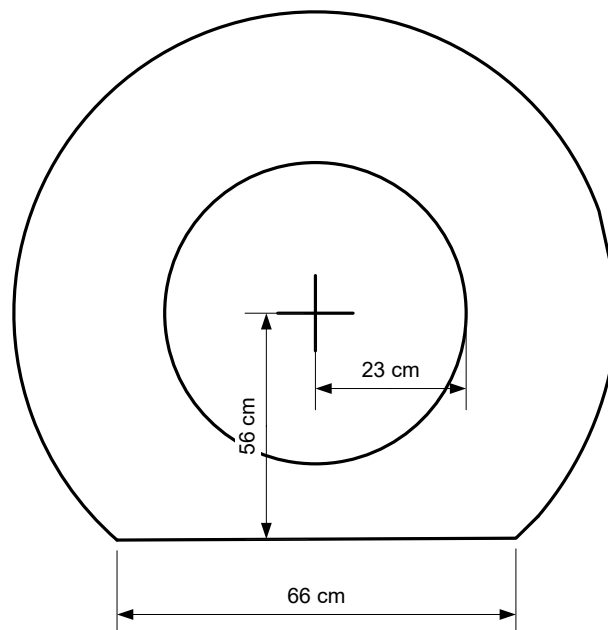
Calculate the area of the dark blue part.



7 Find the area of the blue shaded segment in the diagram below.



8 I have a flat tyre.



My tyre is 180 mm wide. My air pump inflates my tyre at a rate of  $40 \text{ mm}^3$  per second.  
How long will it take for my tyre to be fully reinflated?

$$\text{Circumference of a circle} = 2\pi r = \pi d$$

$$\text{Area of a circle} = \pi r^2$$

$$\text{Area of a sector} = \pi r^2 \times \frac{\theta}{360}$$

$$\text{Area of a triangle} = \frac{1}{2} ab \sin(C)$$

*Pythagoras' Theorem states that in a right-angled triangle, the square of the hypotenuse is equal to the sum of the squares of the other two sides.*

$$c^2 = a^2 + b^2$$

*Circle Theorem: If the angle subtended by a chord is a right angle, then the chord is a diameter.*