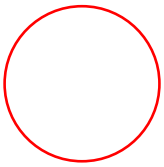
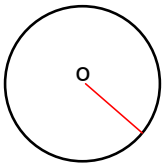
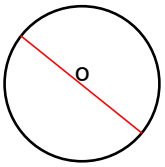
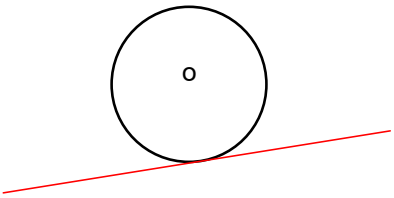
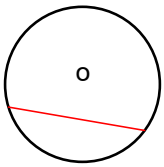
1 Name the red parts of the circles below.

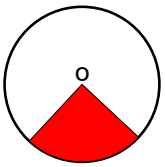


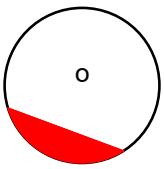


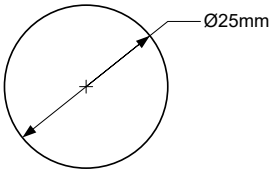



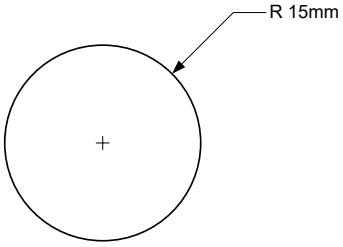



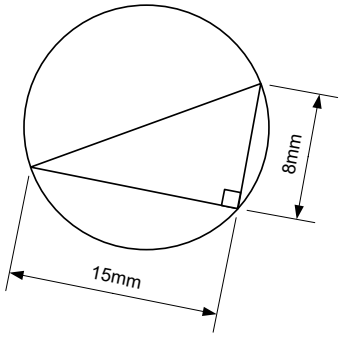



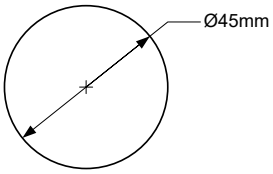

2 Calculate the circumference of the circles below.

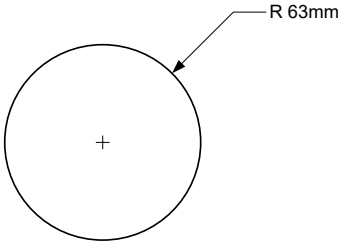


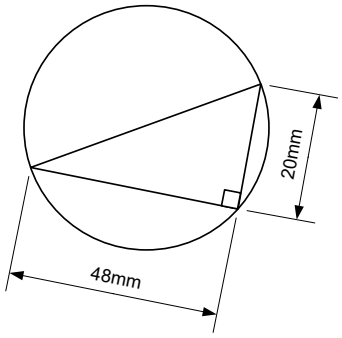



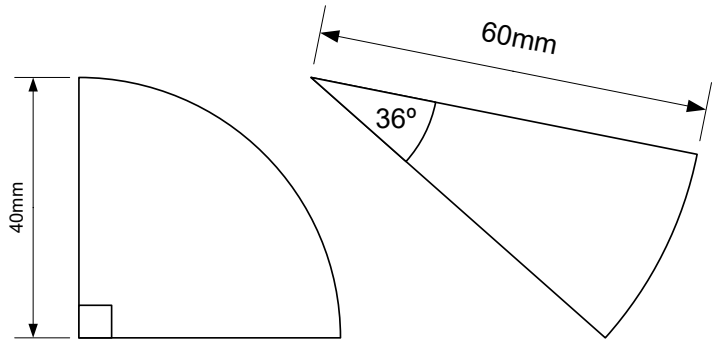

3 Calculate the area of the circles below.

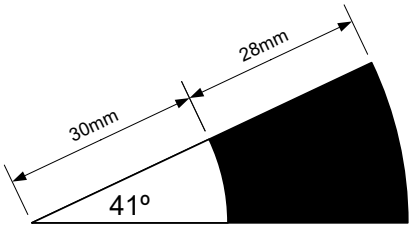


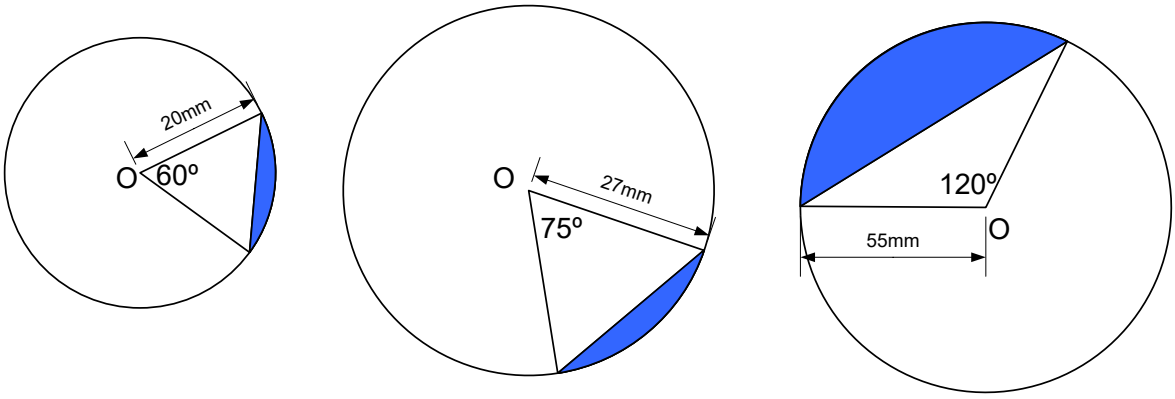
4 Calculate the perimeter and the area of the sectors shown below.




Calculate the area and perimeter of the shaded region.

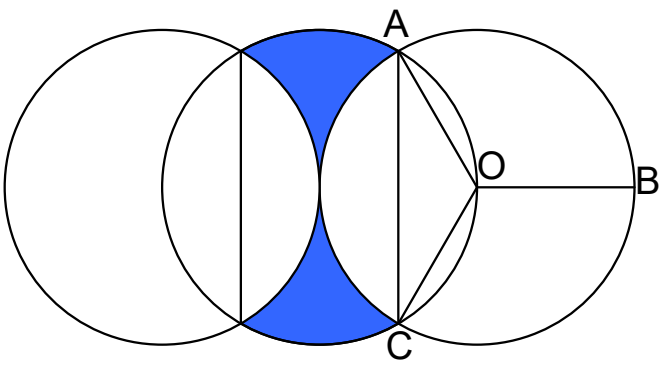
5 Find the area of the segments shown




6 Angles AOB = BOC = COA

All circles have a diameter of 24cm.

Calculate the area of the dark blue part.



**Help Sheet**

$$Circumference\ of\ a\ circle = 2\pi r = \pi d$$

$$Area\ of\ a\ circle = \pi r^2$$

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

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

*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.*