## 5C Arc Length



1. Find the length of the arc of a circle of radius 5.2 cm . The arc subtends an angle of $0.8^{c}$ at the centre of the circle.
2. Arc $A B$ of a circle, with centre $O$ and radius $r$, subtends an angle of $\theta$ radians at $O$. The Perimeter of sector $A O B$ is $P \mathrm{~cm}$. Express $r$ in terms of $P$ and $\theta$.
3. The border of a garden pond consists of a straight edge $A B$ of length 2.4 m , and a curved part C , as shown in the diagram below. The curved part is an arc of a circle, centre O and radius $2 m$. Find the length of $C$.

