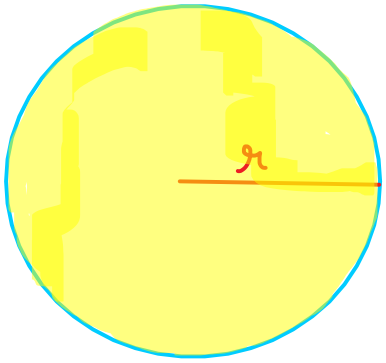
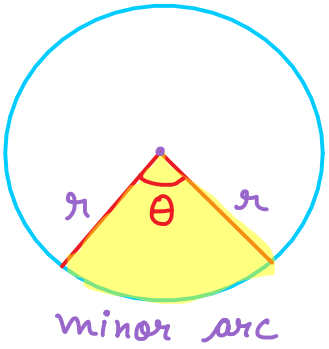
Area related to circles 12

Area of circle = πr^2



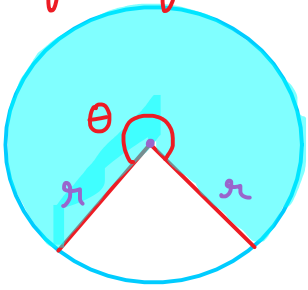
Circumference of circle = $2\pi r$

Area of minor sector = $\frac{\pi r^2 \theta}{360^\circ}$

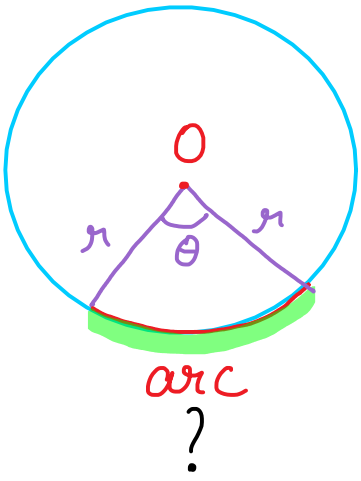


Area of major sector = Area of circle − Area of minor sector

= πr^2 − _____

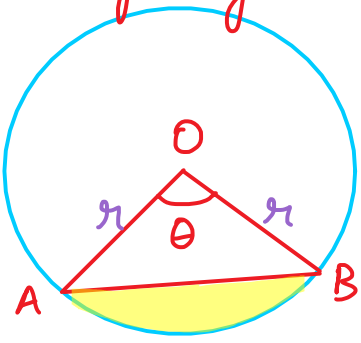


Length of arc $= \dfrac{2\pi r\theta}{360^\circ}$



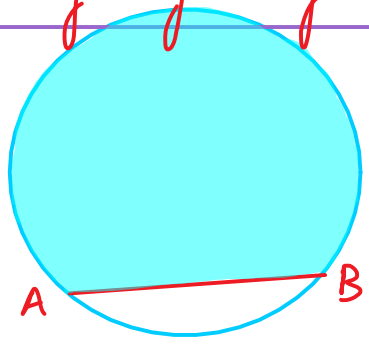
Area of minor segment = Area of minor sector − Area of triangle

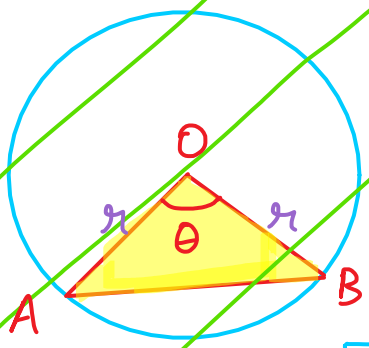
$= \dfrac{\pi r^2\theta}{360^\circ}$ −



Area of major segment = Area of circle − Area of minor segment

$= \pi r^2$ − _____



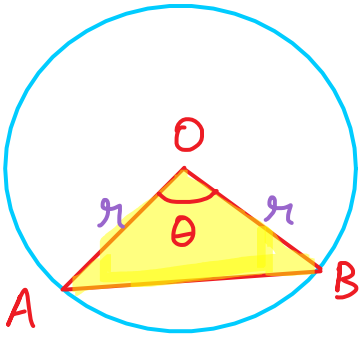


$$\text{Area of triangle} = \frac{1}{2} r^2 \sin\theta$$

$$\sin 30^\circ = \frac{1}{2}$$

$$\sin 60^\circ = \sin 120^\circ = \frac{\sqrt{3}}{2}$$

$$\sin 90^\circ = 1$$

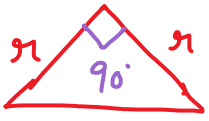


If $\theta = 60^\circ$

Equilateral $\triangle$

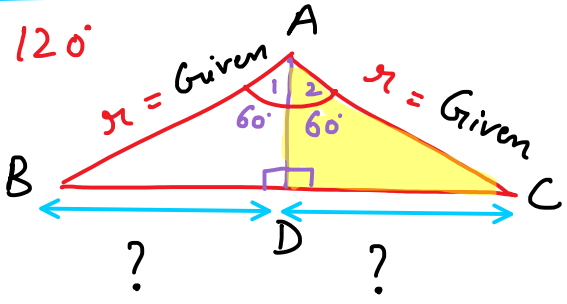
$$\frac{\sqrt{3}}{4} r^2$$

If $\theta = 90^\circ$



$$\frac{1}{2} \times r \times r$$

If $\theta = 120^\circ$



Congruent → RHS

$\angle 1 = \angle 2$ → CPCT

Area of $\triangle (ABC) = \frac{1}{2} \times BC \times AD$