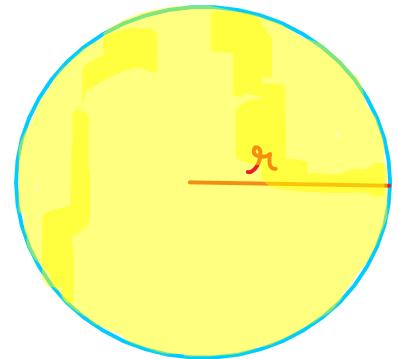


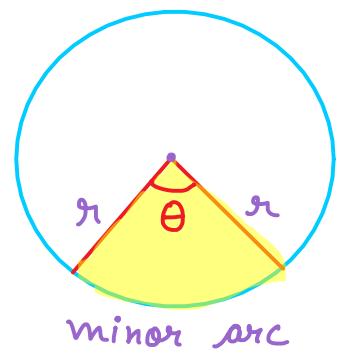
Area related to circles 12

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



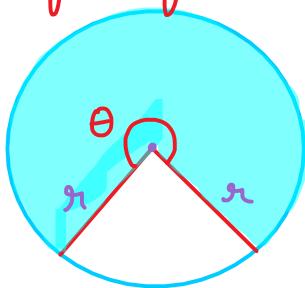
$$\text{Circumference of circle} = 2\pi r$$

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

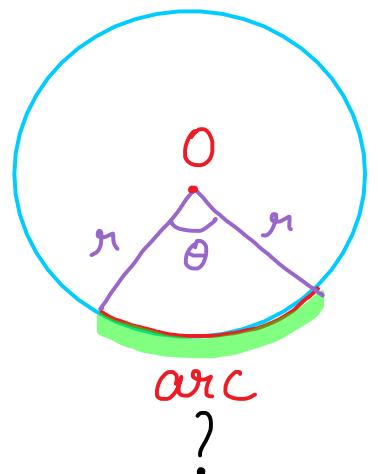


$$\text{Area of major sector} = \text{Area of circle} - \text{Area of minor sector}$$

$$= \pi r^2 -$$



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



$$\text{Area of minor segment} = \text{Area of minor sector} - \text{Area of triangle}$$

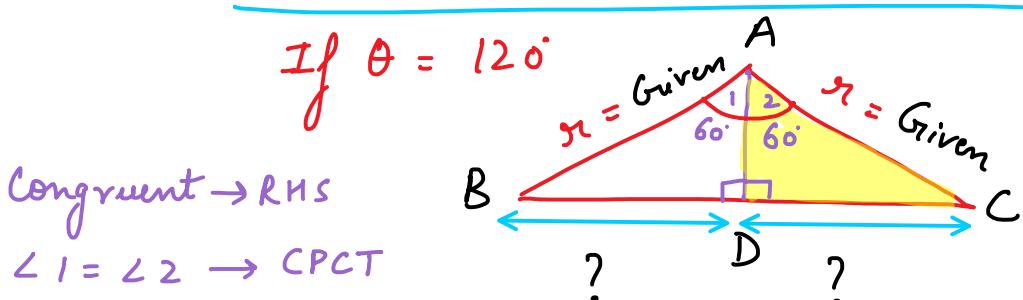
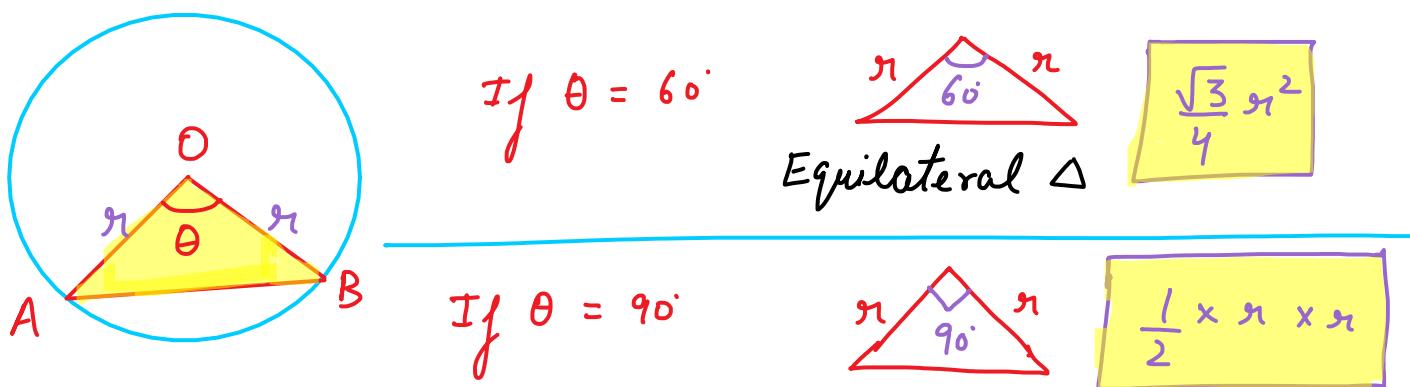
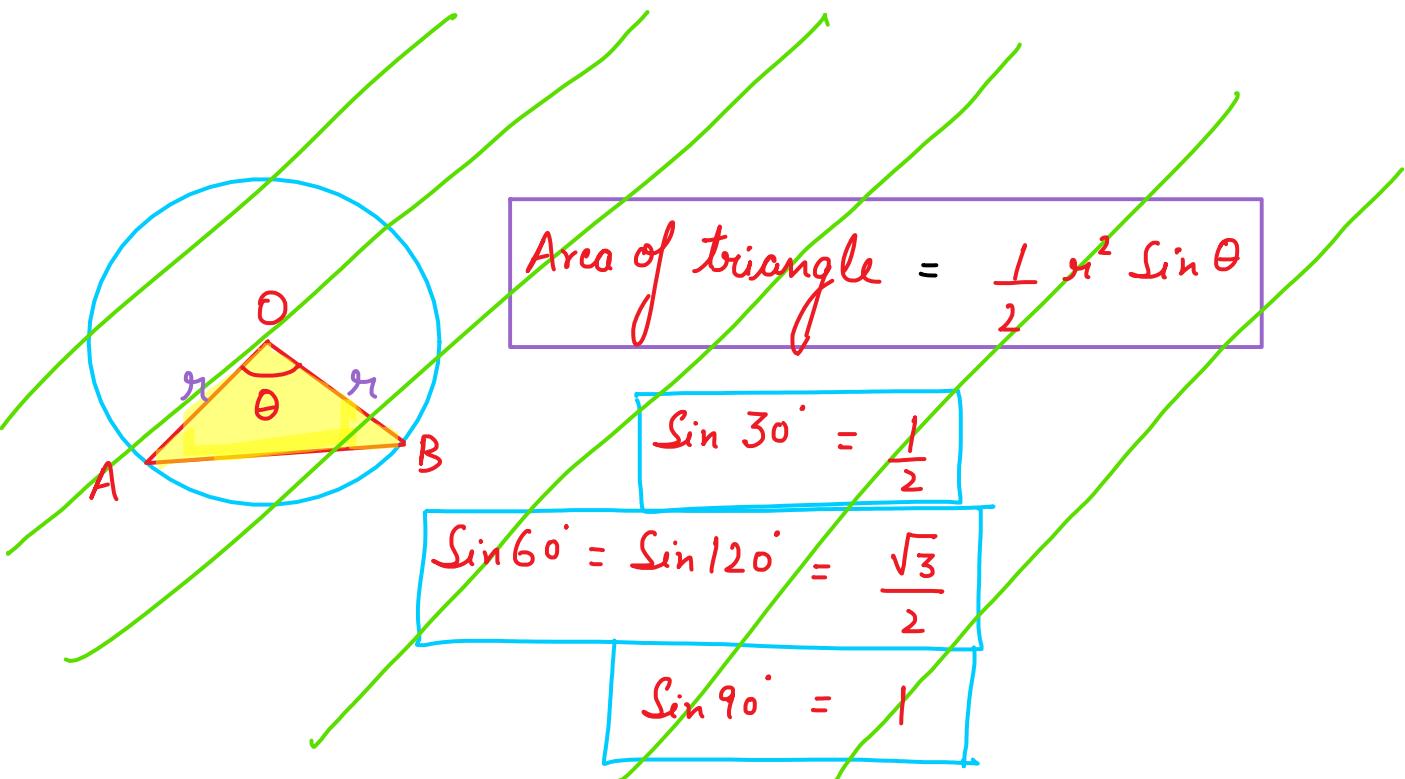
$$= \frac{\pi r^2 \theta}{360^\circ} -$$

A diagram of a circle with center O. A sector is shaded yellow, showing radius r and central angle theta. The triangle formed by the radii and the chord AB is shaded red.

$$\text{Area of major segment} = \text{Area of circle} - \text{Area of minor segment}$$

$$= \pi r^2 -$$

A diagram of a circle with center O. A chord AB is drawn across the circle. The area above the chord is shaded blue, representing the major segment.



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