

7/9/2020  
MONDAY

# MATHEMATICS

STD-8  
class-25

## Assignment

- 1) In the figure O is the centre of the circle and ABC is an equilateral triangle. Find  $\angle BAC$  and  $\angle ABO$ .

Ans)

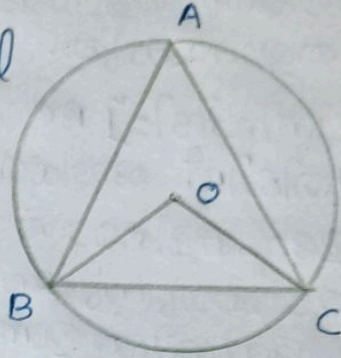
Given  $\triangle ABC$  is an equilateral triangle. That means

$$\angle A = \angle B = \angle C$$

$$\therefore \angle A = \angle B = \angle C = \underline{\underline{60^\circ}}$$

$$\therefore \angle BAC = \underline{\underline{60^\circ}}$$

$$\angle ABO = \frac{60}{2} = \underline{\underline{30^\circ}}$$



- 2) In the picture O is the centre of the circle and A, B, C are points on it. Prove that  $\angle OAC + \angle ABC = 90^\circ$ .

Ans)

$$\text{If } \angle B = x^\circ$$

$$\angle AOC = 2x^\circ$$

Since  $\triangle AOC$  is isosceles

$$\angle OAC = \angle OCA = \left(\frac{180 - 2x}{2}\right)^\circ$$

$$= \frac{180}{2} - \frac{2x}{2} = (90 - x)^\circ$$

$$\therefore \angle OAC + \angle ABC = 90 - x + x = 90^\circ$$

