

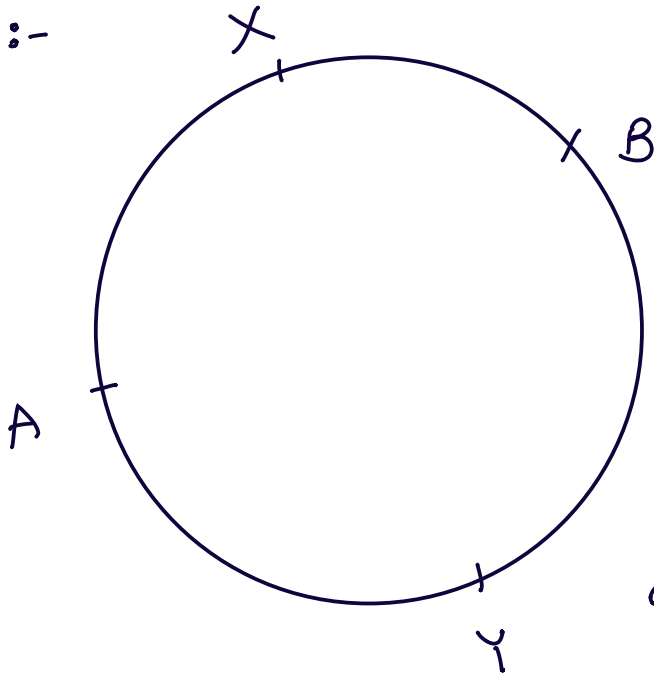
## Practice Set 43

1. Choose the correct option.

If arc AXB and arc AYB are corresponding arcs and  $m(\text{arc AXB}) = 120^\circ$  then  $m(\text{arc AYB}) = \boxed{\phantom{000}}$ .

- (i)  $140^\circ$    (ii)  $60^\circ$    (iii)  $240^\circ$    (iv)  $160^\circ$

Sol<sup>n</sup>:-



Here,

$$m(\text{arc AXB}) = 120^\circ$$

$$m(\text{arc AYB}) = ?$$

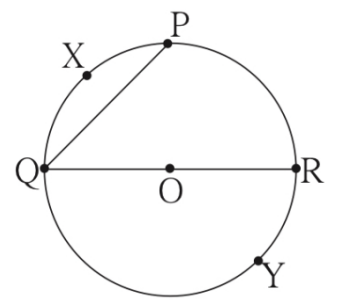
As both the given arcs are corresponding arcs.

$$\begin{aligned} \therefore m(\text{arc AYB}) &= 360^\circ - m(\text{arc AXB}) \\ &= 360^\circ - 120^\circ \end{aligned}$$

$$m(\text{arc AYB}) = 240^\circ$$

$\therefore$  Correct Answer = Option (iii)

2. Some arcs are shown in the circle with centre 'O'.  
Write the names of the minor arcs, major arcs and semicircular arcs from among them.



Sol<sup>n</sup>:-

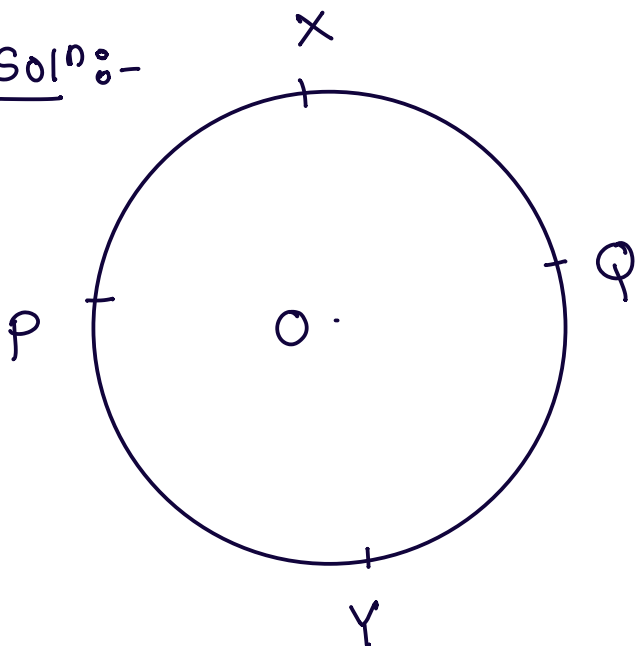
i) Minor arcs = arc  $PXQ$ , arc  $PR$ ,  
arc  $QY$ , arc  $QX$ ,  
arc  $RY$ , arc  $PX$ .

ii) Major arcs = arc  $PYQ$ , arc  $PXR$ ,  
arc  $QPY$ , arc  $XYQ$ ,  
arc  $RXY$ , arc  $PRX$ .

iii) Semi-circular arcs = arc  $QPR$   
arc  $QYR$

3. In a circle with centre O, the measure of a minor arc is  $110^\circ$ . What is the measure of the major arc  $PYQ$ ?

Sol<sup>n</sup>:-



Here,

$$m(\text{arc } PXQ) = 110^\circ$$

$$m(\text{arc } PYQ) = ?$$

We know,

$$\begin{aligned}m(\text{arc } PYQ) &= 360^\circ - m(\text{arc } PXQ) \\ &= 360^\circ - 110^\circ\end{aligned}$$

$$m(\text{arc } PYQ) = 250^\circ$$