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# ST. LAWRENCE HIGH SCHOOL



A Christian Jesuit minority Institution

ClassX

Date:09 .04.2020

Subject- Mathematics

## Worksheet-3

Chapter- theorems related to angles in a circle

Topic-in a circle , angle at the centre is double of the angle on the circumference if they are placed on the same arc

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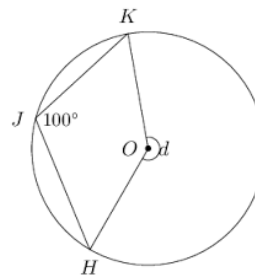
1. Choose the correct alternative. 1x15=15

a) In a circle with centre O there is a triangle ABC. A,B, C are lying on the circle. Angle BOC is  $120^\circ$  . Then angle BAC is

i)  $30^\circ$  ii)  $60^\circ$  iii)  $120^\circ$  iv) none of these

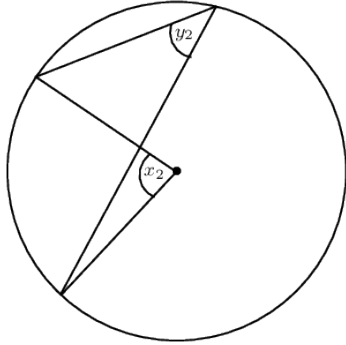
b) Measure of reflex  $\angle KOH$  is

i)  $200^\circ$  ii)  $100^\circ$  iii)  $50^\circ$  iv) none of these



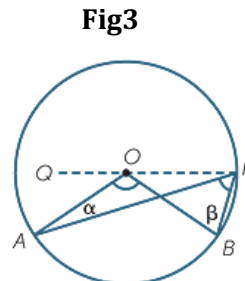
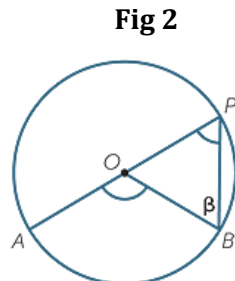
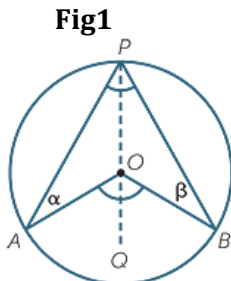
c) If  $X_2=80^\circ$  , Value of  $Y_2$  is

i)  $30^\circ$  ii)  $40^\circ$  iii)  $80^\circ$  iv) none of these



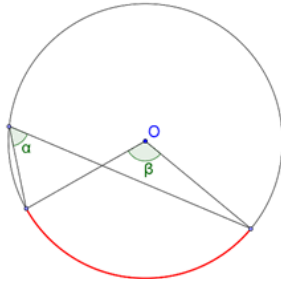
- d) A, B, C are 3 points lying on the circle with centre O. Now O, A ; O, B ; O, C ; A, B and A, C are joined. angle ABO =  $35^\circ$  and angle ACO =  $45^\circ$  then angle BAC is  
 i)  $45^\circ$  ii)  $50^\circ$  iii)  $80^\circ$  iv) none of these
- e) A, B, C are 3 points lying on the circle with centre O. Now O, A ; O, B ; O, C ; A, B and A, C are joined. angle ABO =  $35^\circ$  and angle ACO =  $45^\circ$  then angle BOC is  
 i)  $45^\circ$  ii)  $160^\circ$  iii)  $80^\circ$  iv) none of these

- e) In reference to fig 1  $\alpha = 55^\circ$ ,  $\beta = 25^\circ$ . angle AOB is i)  $160^\circ$  ii)  $80^\circ$  iii)  $40^\circ$  iv)  $100^\circ$

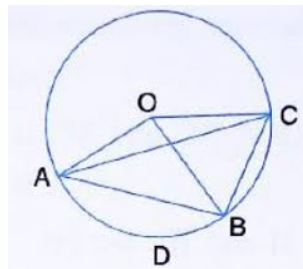


- f) In reference to the above fig 2,  $\beta = 30^\circ$ , then angle AOB is  
 i)  $70^\circ$  ii)  $60^\circ$  iii)  $45^\circ$  iv) none of these
- g) In reference to the above fig 3 angle AOB =  $120^\circ$ , then angle APB is  
 i)  $30^\circ$  ii)  $120^\circ$  iii)  $60^\circ$  iv) none of these

- h) In the following figure If  $\alpha = 50^\circ$  then the measure of  $\beta$  is i)  $200^\circ$  ii)  $100^\circ$  iii)  $150^\circ$   
 iv) none of these



i) In the following figure the measure of  $x$  is i)  $146^\circ$  ii)  $156^\circ$  iii)  $186^\circ$  iv) none of these



j) In the  $60^\circ$  ii)  $80^\circ$  iii)  $160^\circ$

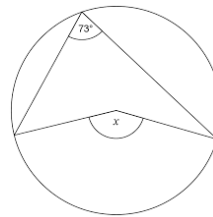
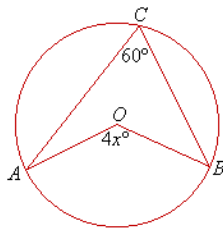


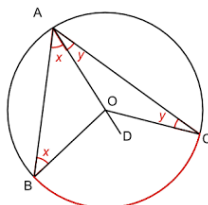
figure below  $x = 60^\circ$ ,  $y = 20^\circ$ , then angle BOC is i) iv)  $40^\circ$

k) Value of  $x$  in the figure below is i)  $30^\circ$  ii)  $40^\circ$  iii)  $20^\circ$  iv) none of these



l) A, B, C are such 3 points on the circle with centre O that AOCB parallelogram is obtained  
 m) In the figure below If angle BOC =  $45^\circ$ , then angle BAC is i)  $22\frac{1}{2}^\circ$  iii)  $23^\circ$  iv) none of these

22° ii)



n) In the figure below ,the measure of angle OPQ is i)  $55^\circ$  ii)  $45^\circ$  iii)  $30^\circ$  iv) none of these

o)If in the figure below  $\theta = 44^\circ$ , then measure of OCA is i)  $20^\circ$  ii)  $22^\circ$  iii)  $44^\circ$  iv) none of these

Aparajit Mondal

