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ST. LAWRENCE HIGH SCHOOL

## A Christian Jesuit minority Institution

Subject: Mathematics
Class: X
Date:09 .04.2020
Answer key of Worksheet-3
Chapter- angles related to angles in a circle
Topic - in a circle angles at the centre are double of angles on the circumference. If they are Placed on the same arc.

1. Cho se the correct alternative.

1x15=15
a)In a circle with centre 0 there is a triangle $A B C$. $A, B, C$ are lying on the circle. Angle $B O C$ is $120^{\circ}$. Then angle BAC is
Ans ii) $60^{\circ}$
b)Measure of reflex $\llcorner\mathrm{KOH}$ is

Ans i) $200^{\circ}$
c) If $X_{2}=80^{\circ}$, Value of $Y_{2}$ is Ans ii) $40^{\circ}$

d) $A, B, C$ are 3 points lying on the circle with centre $O$. where $O B$ and $O c$ are 2 radii. Now $0, A ; 0, B ; O, C ; A, B$ and $A, C$ are joined. angle $A B O=35^{\circ}$ and angle $A C O=45^{\circ}$ then angle $B A C$ is
Ans iii) $\mathbf{8 0}^{\circ}$
e) $A, B, C$ are 3 points lying on the circle with centre $O$. Where $O B$ and $O C$ are 2 radii. Now $0, A ; 0, B ; 0, C ; A, B$ and $A, C$ are joined. angle $A B O=35^{\circ}$ and angle $A C O=45^{\circ}$ then angle $B O C$ is
Ans ii) $\mathbf{1 6 0}^{\circ}$
e) In referece to fig $1 \alpha=55^{\circ}, \beta=25^{\circ}$. angle $A O B$ is Ans i) $\mathbf{1 6 0}^{\circ}$

f)In reference to the above fig $2, \beta=30^{\circ}$, then angle $A O B$ is Ans ii) $60^{\circ}$
g)In reference to the above fig 3 angle $\mathrm{AOB}=120^{\circ}$,then angle APB is Ans iii) $60^{\circ}$
h)In the following figure If $\alpha=50^{\circ}$ then the measure of $\boldsymbol{\beta}$ is

Ans ii) $\mathbf{1 0 0}^{\circ}$

i) In the following figure the measure of $x$ is Ans i) $\mathbf{1 4 6}^{\circ}$

j) In the figure below $x=60^{\circ}, y=20^{\circ}$, then angle $B O C$ is Ans iii) $160^{\circ}$
k) Value of x in the figure below is Ansi) $\mathbf{3 0}^{\circ}$

l) $A, B, C$ are such 3 points on the circle with centre 0 that AOCB parallelogram is obtained ,then angle AOC is Ansii) $120^{\circ}$
$m)$ In the figure below If angle $B O C=45^{\circ}$,then angle $B A C$ is Ans ii) $22 \frac{1}{2}{ }^{\circ}$

n) In Ans i)

the figure below ,the measure of angle $O P Q$ is $55^{\circ}$
o)If in the figure below $\theta=44^{\circ}$, then measure of OCA is Ans ii) $\mathbf{2 2}^{\circ}$

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