



ST. LAWRENCE HIGH SCHOOL



A Christian Jesuit minority Institution

Subject: Mathematics

Class: X Date:08.04.2020

Answer key of Worksheet-2

Chapter-theorems related to circles

Topic-if a line segment Passing through the centre bisects A chord then the line segment is perpendicular on the chord

1.Choose the correct alternative . $1 \times 15 = 15$

a) A chord divides a circle into two _____

ans ii) segment

b)If a chord is bisected by a line segment passing through the centre, then it is _____ to/with the chord.

Ans i) perpendicular

c)Any line segment joining the point outside a circle and the centre is _____ than /to the radius .

Ans iii) greater

d)A circle has 5 cm radius and AB is a chord having 8 cm length.The distance of the chord from O point is

Ans ii) 3 cm

e)In a circle with centre O ,PQ chord has the length 4 cm and distance between the chord and the centre is 2.1 cm. Radius of the circle is

Ans i) 2.9 cm

f) In a circle having 26 cm diameter ,the distance of a chord PQ from O is 5 cm. Length of the chord is

Ans ii) 24 cm

g) There 2 chords of the length 6 cm and 8 cm. Chords are placed on two different sides of the centre. The distance of the smaller chord is 4 cm from the centre .Find the distance of the longer chord from the centre

Ans iii) 3 cm

h)There is a chord of the length 48 cm and distance of this chord from the centre is 7 cm. Now there is another chord which is placed 20 cm away from the centre. The length of this chord is

Ans i) 30 cm

i) In a circle having 5 cm radius there is chord 3 cm away from the centre .Length of the chord is

Ans iii) 8 cm

j) In a circle with centre O there is a chord PQ having 16 cm length. Now a line segment passing through the centre intersects the chord at M , $PM = 8$ cm, Find angle OMQ

Ans ii) 90°

k) In a circle with centre O , PQ chord is bisected by AO , $PA = 6$ cm and $OA = 8$ cm. Now extended OA is touching the circle at B . Length of AB is

Ans ii) 2 cm

l) Number of circles that can be drawn keeping one point as centre is

Ans ii) infinite

m) In a circle with centre O , AB and CD are 2 equal chords. angle $AOB = 60^\circ$, then angle COD is

Ans iii) 60°

n) In a circle with centre O , AB and CD are 2 equal chords. angle $AOB = 60^\circ$, $OA = 5$ cm then what is the length of the chord

Ans iii) 5 cm

o) Ratio of 2 chords PQ and RS in a circle with centre O is 1:1. Then angle POQ : angle ROS is

Ans iii) 1:1

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