# ST. LAWRENCE HIGH SCHOOL

**A Jesuit Christian minority Institution**

**Subject: Mathematics Class-XDate:6/03/2021**

**Topic: Theorems related to circle Answer key of Worksheet13**

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1. **Choose the correct alternative. 1x15=15**
   a) **The circles having same Centre are known as i) equivalent circle ii) concentric circle iii) semicircle iv) none of these**
   b) **The straight line drawn from the centre and perpendicular to a chord divides the chord in _____ratio.**
   **i)1:1 ii)2:1 iii)1:2 iv) none of these**

**c)The length of a chord of a circle with radius 13 cm is 10 cm. The distance of the chord from the centre is _____.**

**i) 12.5 cm ii) 24 cmiii) 12 cm iv) none of these**

**d)AB and CD are two equal chords with centreo.If angle AOB=60° and CD=6 cm, then length of OC is i) 3 cm ii) 4 cm iii) 5 cm iv) 6 cm**

**e) P is a point inside the circle with centre O. If the radius of the circle is 10 cm and if OP=6 cm then the least length of the chord passing through P is**

**i) 8 cm ii) 16 cm iii) 12 cm iv) none of these**

**f) P and R are the centres of 2 circles which intersect each other at A and B. If a straight line through A and parallel to PR cuts the circles at C and D respectively, then find length of CD, if PR=10 cm.**

**i) 20 cm ii) 15 cm iii) 18 cm iv)12 cm**

**g)The length of the perpendicular drawn from the centre O to a chord AB of length 16 cm of a circle is 6 cm .Then the length of the chord CD at a distance 8 cm from the centre is i) 20 cm ii) 12 cm iii) 15 cm iv) 18 cm**

**h) 2 diameters of a circle can never be _____**

**i) intersecting ii) perpendicular iii) parallel iv) none of these**

**i) Two parallel chords of lengths 16 cm and 12 cm respectively are on the same side of the circle of radius 10 cm Find the distance between 2 chords .**

**i) 8 cm ii) 6 cm iii) 5 cm iv) 2 cm**

**j) The length of 2 parallel chords of a circle of radius 15 cm are 24 cm and 18 cm. Find the distance between the chords when they are on the opposite sides.**

**i) 21 cm ii) 3 cm iii) 15 cm iv) 17 cm**

**k) 2 circles ,each of radius 10 cm , intersect each other at 2 points P and Q. If PQ= 12 cm and if A and B are the centres of the 2 circles, then the distance between the centres is i) 8 cm ii) 16 cm iii) 20 cm iv) 15 cm**

**l)If all the vertices of a quadrilateral lie on the circumference of a circle, then quadrilateral is known as i) square ii) rectangle iii) rhombus iv) cyclic quadrilateral**

**m) AB and CD are 2 equal chords of a circle with centre O. If angle AOB=80° ,then angle COD=_____ i) 90° ii) 100° iii) 80° iv) 60°**

**n)If M is the mid point of the chord AB of a circle with centre O, then OM is _____to AB. i) parallel ii) adjacent iii) perpendicular iv) none of these**

**o)AB and CD are 2 chords of a circle.They intersect each other at P.If AP=CP then AB:CD=_____ i) 1:1 ii)2:1 iii)1:2 iv) none of these**

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