ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian minority Institution

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

Topic: theorems related to circles Worksheet 13Full marks -15

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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 cm   iii) 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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