



VIDYANIKETAN COACHING CLASSES, GHANSAWANGI

Class:-10th
Sub:- Math-2

Mark's :-25
Time:-1:30 Hr

Q.1) Choose the correct alternative.

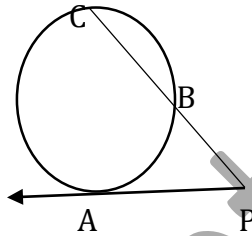
[4]

- A tangent at any point of a circle is perpendicular to the radius through the.....
A) chord B) diameter C) point of contact D) all of the above
- Concentric circles have the same.....
A) radius B) center C) diameter D) chord
- Chord AB and CD of a circle intersect inside the circle at E. If $AE=5.6$, $EB=10$, $CE=8$, find ED.
A) 7 B) 8 C) 11.2 D) 9
- If two circles are touching externally, how many common tangent of them can be drawn?
A) One B) Two C) Three D) Four

Q.2) Solve the following questions. [Any-4]

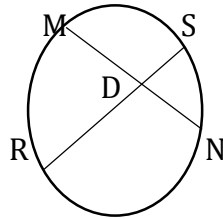
[8]

- In the following figure, a tangent segment PA touching circle in A and a secant PBC are shown. If $AP=12$, $BP=9$, find BC.



- What is the distance between two parallel tangents of a circle having radius 4.5? Justify your answer.
- If radii of two circles are 4 cm and 2.8 cm. Draw figure of these circles touching each other
a) externally b) internally
- $\square ABCD$ is cyclic, $\angle B=(5x+40)^\circ$ and $\angle D=(8x+23)^\circ$ then find the measures of $\angle B$ and $\angle D$.
- In the adjoining figure, chord MN and chord RS intersect at point D.

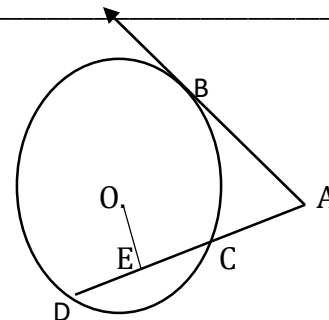
If $RS=18$, $MD=9$, $DN=8$, find DS



Q.3) Solve the following questions. [Any-3]

[9]

- In the adjoining figure, O is the center of the circle and B is a point of contact. Seg $OE \perp$ seg AD. $AB=12$, $AC=8$, find
i. AD ii. DC iii. DE



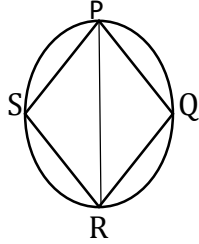
ii) Prove that the chords corresponding to congruent arcs of congruent arcs of congruent circles are congruent.

iii) In the adjoining figure. $\square PQRS$ is cyclic. Side $PQ \cong$ side RQ , $\angle PSR = 110^\circ$. Find

i. measure of $\angle PQR$

ii. m (arc PQR)

iii. m (arc QR)

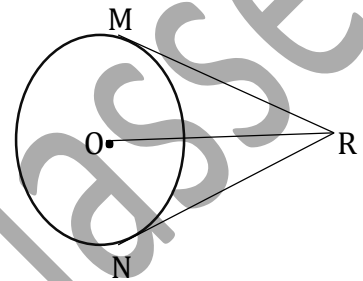


iv) In the adjoining figure, O is the center of the circle. From point R , seg RM and seg RN are tangent segments touching the circle at M and N . If $(OR) = 10\text{cm}$ and radius of the circle $= 5\text{cm}$, then

i. What is the length of each tangent segment?

ii. What is the measure of $\angle MRO$?

iii. What is the measure of $\angle MRN$?

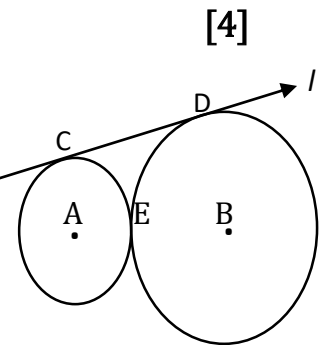


Q.4) Attempt any one

i) In the adjoining figure, the circles with centers A and B touch each other at E .

Line l is a common tangent which touches the circles at C and D respectively.

Find the length of seg CD if the radii of the circle are 4cm , 6cm .



ii) In the adjoining figure, line PR touches the circle at point Q .

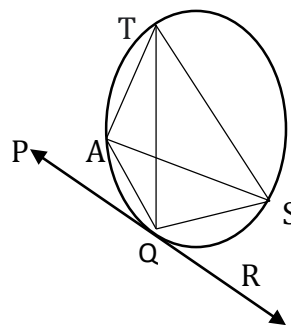
Answer the following questions with the help of the figure.

i. What is the sum of $\angle TAQ$ and $\angle TSQ$?

ii. Find the angles which are congruent to $\angle AQP$.

iii. Which angle are congruent to $\angle QTS$?

iv. If $\angle TAS = 65^\circ$, find the measures of $\angle TQS$ and arc TS .



Best of luck.....

For more info visit : www.vidyaniketan.org.in