MATHS

BOOKS - VGS BRILLIANT MATHS (TELUGU ENGLISH)

TANGENTS AND SECANTS TO A CIRCLE

Exercise

1. Draw a circle with any radius . Draw four tangents at different points . How many

tangents can you draw to this circle ?

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2. How many tangents you can draw to circle from a point away from it ?

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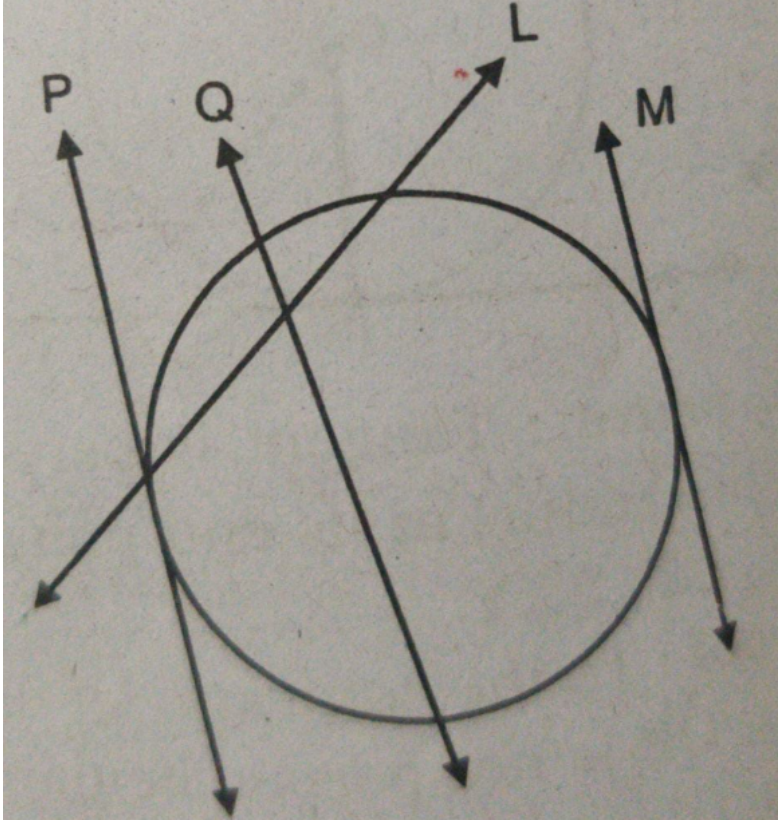
3. In the below figure which are tangents to the given circles ?



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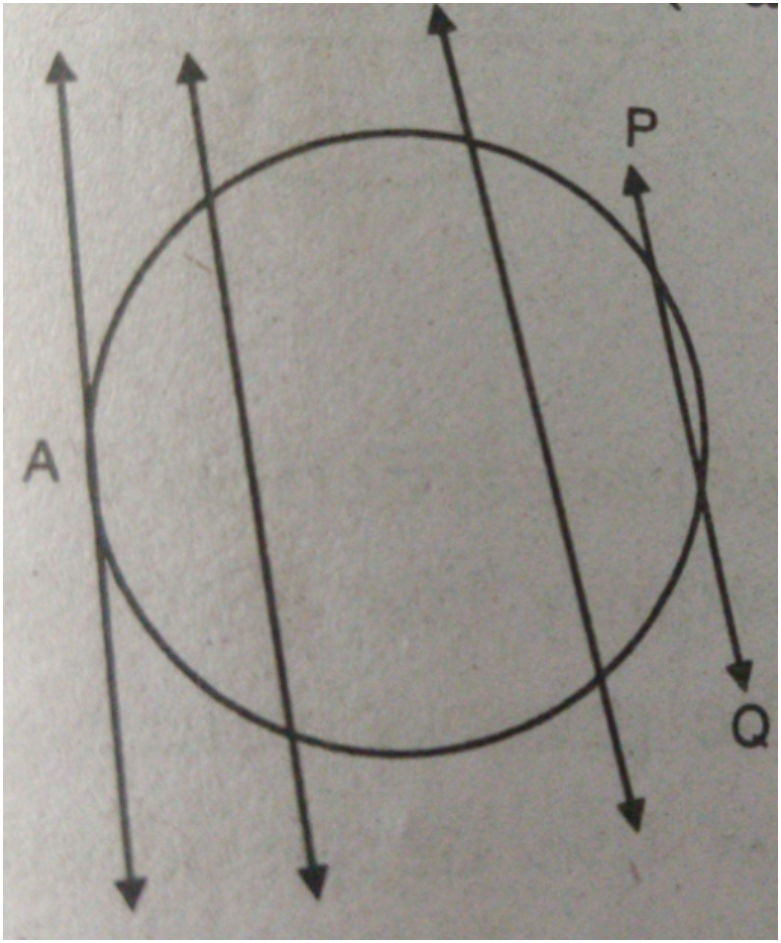
4. Draw a circle and a secant PQ of the circle on a paper as shown below. Draw various lines

parallel to the secant on both sides of it . What happens to the length of chord coming closer to the centre of the circle ?



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5. What is the longest chord ?

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6. How many tangnets can you draw to a circle , which are parallel to each other ?

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7. How can you prove the converse of the above theorem.

"If a line in the plane of a circle is perpendicular to the radius at its end point on the circle , then the line is tangent to the circle " .

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8. We can draw ..... tangents to a given circle .

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9. A tangent to a circle intersects it in ..... Point (s) .

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10. A line intersecting a circle in two points is called a .....

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11. Number of tangents drawn to a circle is .....

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12. The common point to a tangent and a circle is called .....

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13. We can draw ..... tangents to a given circle .

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14. Fill in the blanks. A circle can have parallel.....tangents at the most.

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15. Fill in the blanks

A tangent PQ at a point P of a circle of radius $5cm$ meets a line through the centre O at a point Q so that $OQ = 13cm$. Find length of PQ.

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16. Draw a circle and two lines parallel to a give such that one is a tangent and the other , a secant to the circle .

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17. Calculate the length of tangent from a point 15 cm away from the centre of a circle of radius 9 cm .

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18. Prove that the tangnets to a circle at the end points of a diameter are parallel .

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19. Use Pythagoras theorem and write proof of above theorem " the lengths of tangents drawn from an external point to a circle are equal . "

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20. Draw a pair of radii OA and OB such that $\angle BOA = 120^\circ$. Draw the bisector of $\angle BOA$ and draw lines perpendiculars to OA and OB at A and B . These lines meet on the bisector of

$\angle BOA$ at a point which is the external point and the perpendicular lines are the required tangents . Construct and justify .

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21. Draw a pair of tangents to circle of radius 5 cm which are inclined to each other at an angle 60° .

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22. Two concentric circles of radii 5 cm and 3 cm are draw . Find the length of the chord of the larger circle which touches the smaller circle .

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23. Parallelogram circumscribing a circle is a .....

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24. A triangle ABC is drawn to circumscribe a circle of radius 3 cm. such that the segments BD and DC into which BC is divided by the point of contact D are of length 9 cm. and 3 cm. respectivley. Find the sides AB and AC.

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25. Draw a Circle of radius 4 cm . From a poit 7.5 cm away from its centre , construct the pair of tangents to the circle .

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26. Construct a tangent to a circle of radius 4 cm from a point on the concentric circle of radius 6 cm and measure its length. Also verify the measurement by actual calculation.

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27. Draw a circle with the help of a bangle , take a point outside the circle . Construct the

pair of tangents from this point to the circle measure them . Write conclusion .

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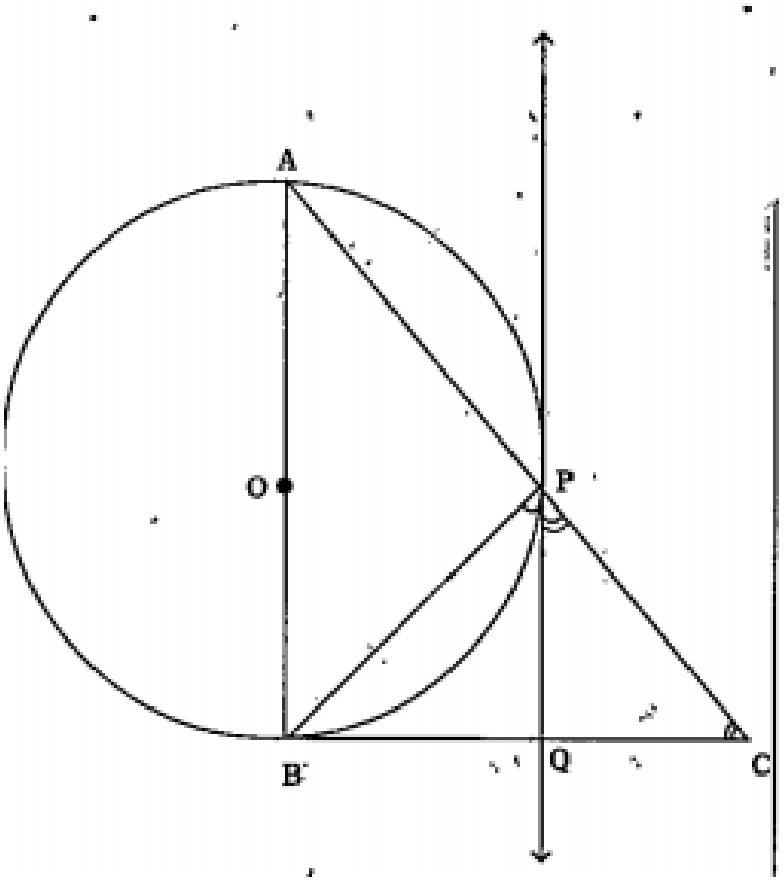
28. In a right triangle ABC, a circle with a side AB diameter is drawn to intersect the hypotenuse AC in P. Prove that the tangent to

the circle at P bisects the side BC.



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29. Draw tangent to a given circle with Centre O from a point 'R' outside the circle. How many tangents can be drawn to the circle from the point ?

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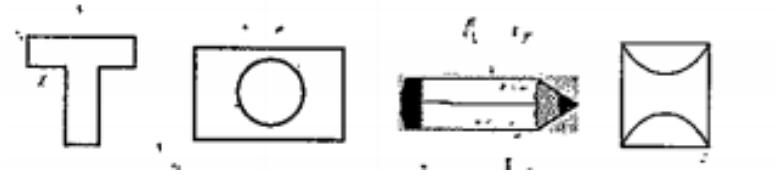
30. Shankar made the following pictures also. To find area of a figure, identify what are the shapes involved in it.



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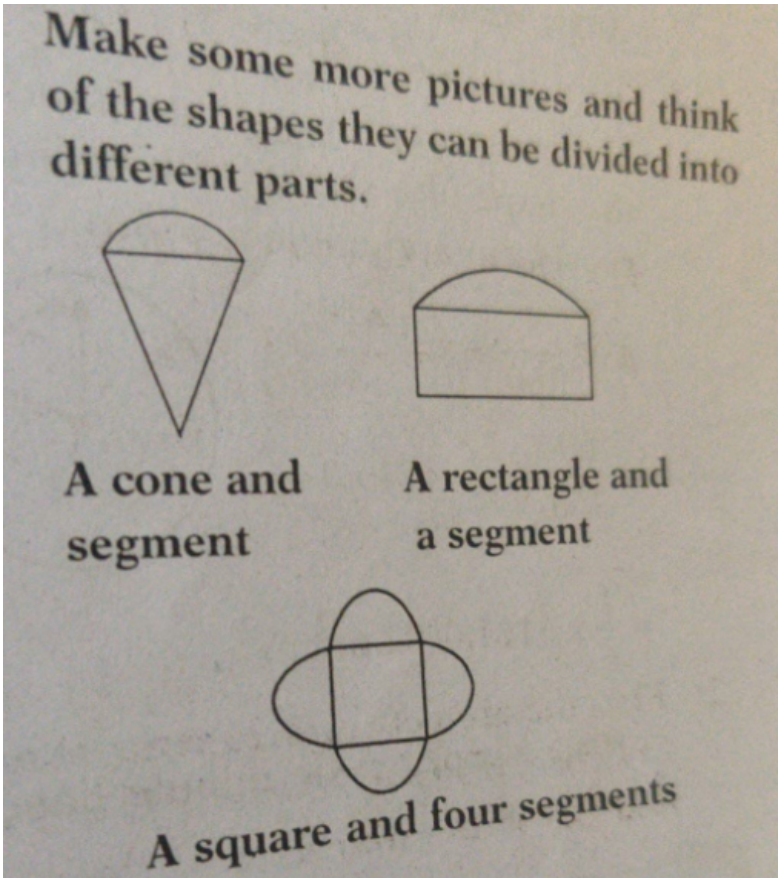
31. Make some more pictures and think of the shapes they can be divided into different parts



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32. Find the area of sector , whose radius is 7 cm . With the given angles .

60°

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33. Find the area of sector , whose radius is 7 cm . With the given angles .

30°

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34. Find the area of sector , whose radius is 7 cm . With the given angles .

72°

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35. Find the area of sector , whose radius is 7 cm . With the given angles .

90°

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36. Find the area of sector , whose radius is 7 cm . With the given angles .

120°

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37. The length of the minute hand of a clock is 14 cm . Find the area swept by the minute hand in 10 minutes .

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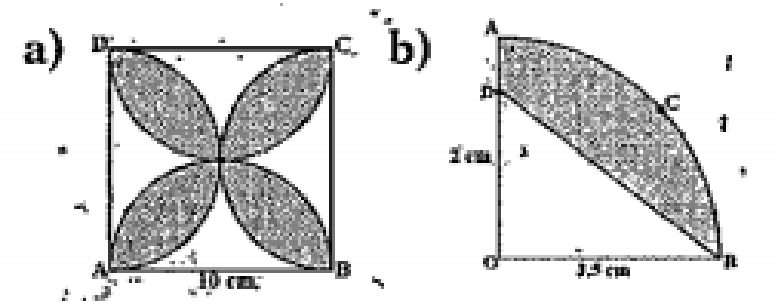
38. Name the shapes in word in the following figure.



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39. How can you find the area of major segment using area of minor segment ?

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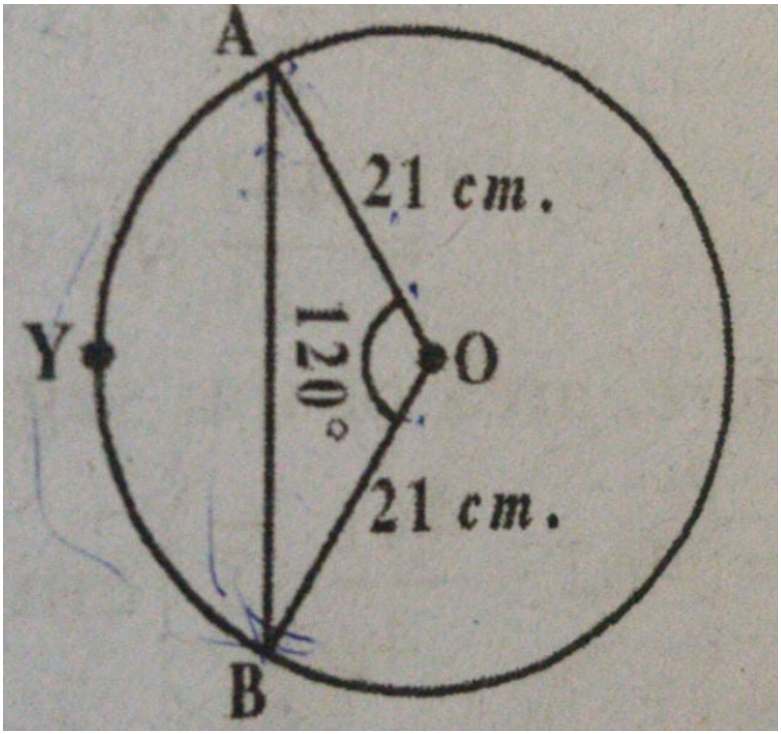
40. Find the area of the segment AYB showing in the adjacent figure . If radius of the circle is 21 cm and $\angle AOB = 120^\circ$.

(Use $\pi \frac{22}{7}$ and $\sqrt{3} = 1.732$)



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41. Find the area of the shaded in figure , if PQ = 24cm , PR = 7cm . And QR is the diameter of the circle with centre O . $\left(\text{Take } \pi = \frac{22}{7}\right)$

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42. A round table top has six equal diesigns as shown in the radius of the table top is 14 cm , find the cost of making the designs with point at the rate Rs 5 per cm^2 . (Use $\sqrt{3} = 1.732$)

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43. A chord of circle of radius 10 cm subtends a right angle at the centre . Find the area of the corresponding :

Minor segment

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44. A chord of circle of radius 10 cm subtends a right angle at the centre . Find the area of

the corresponding :

Minor segment

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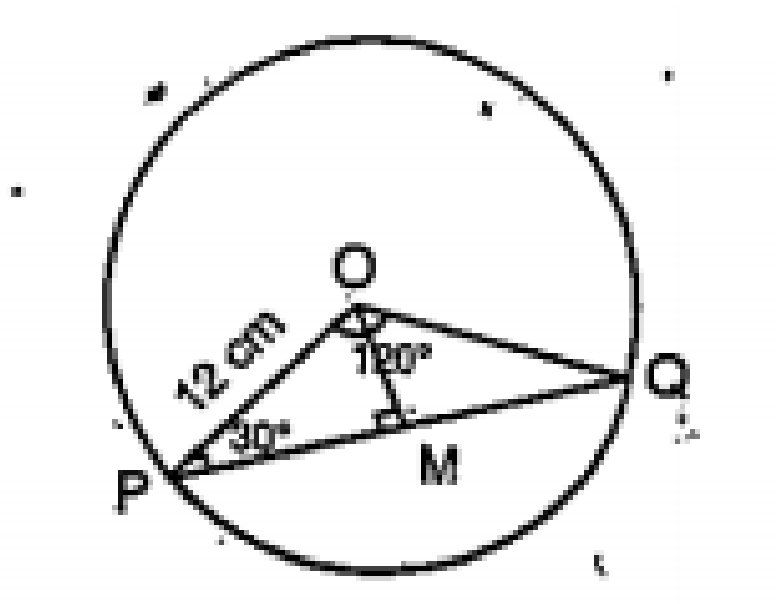
45. In a circle of radius 12 cm, a chord subtends an angle of 120° at the centre. Find the area of the corresponding minor segment

of the circle.(Use $\pi = \frac{22}{7}$ and $\sqrt{3} = 1.732$)



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46. A car has two wipers which do not overlap. Each wiper has a blade of length 25 cm sweeping through an angle of 115° . Find the

total area cleaned at the sweep of the blades .

(use $\pi = \frac{22}{7}$)

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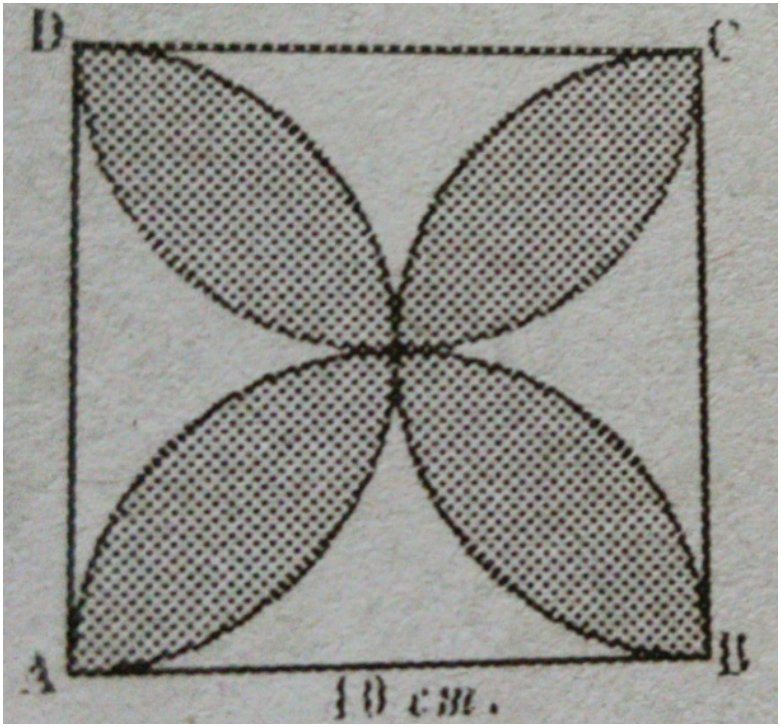
47. Find the area of the shaded region in figure , where ABCD is a square of side 10 cm .and semicircles are draw with each side of the

square as diameter (use $\pi = 3.14$).



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48. Find the are of the shaded region in figure , if ABCD is a square of side 7 cm and APD and

BPC are semicircles . (use $\pi = \frac{22}{7}$)

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49. In figure OACB is a quadrant of a circle with centre O and radius 3.5 cm . If OD = 2 cm ., find the area of the shaded region . (use $\pi = \frac{22}{7}$)

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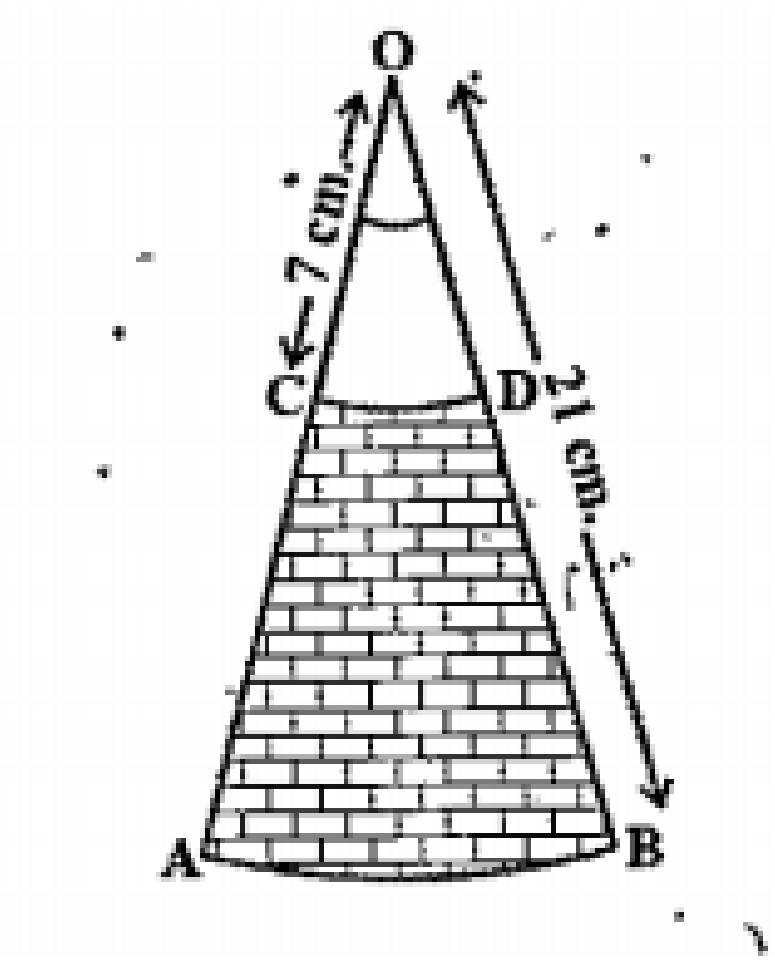
50. A B and CD are respectively arcs of two concentric circles of radii 21 CM and 7cm which

center O(see figure).If$\angle = 30^\circ$ find the area of the shaded region. (use$\pi = \frac{22}{7}$)



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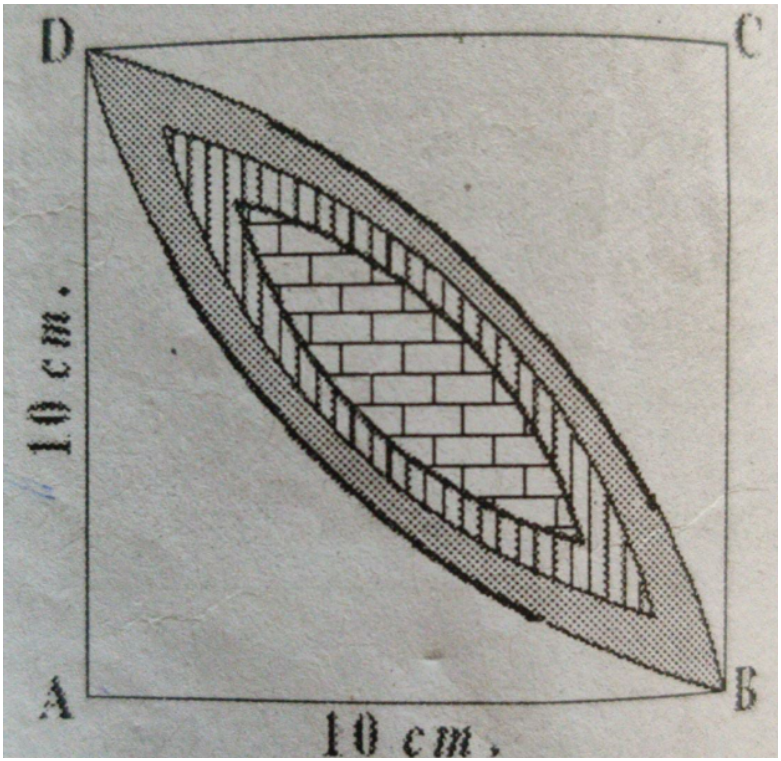
51. Calculate the area of the desigred region in figure , common between the two quadrants of the circles of radius 10 cm each . (use $\pi = 3.14$)



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52. Prove that the angle between the two tangents drawn from an external point to a circle is supplementary to the angle subtended by the line segment joining the points of contact at the centre.

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53. PQ is a chord of length 8 cm of a circle of radius 5 cm. The tangents at P and Q intersect at a point T (see figure). Find the length of TP.

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54. Prove that opposite sides of a quadrilateral circumscribing a circle subtend supplementary angles at the centre of the circle .

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55. Draw a line segment AB of length 8 cm . Taking A as centre draw a circle of radius 4 cm and taking B as centre , draw another circle of

radius 3cm . Construct tangents to each circle from the centre of the other circle.

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56. Let ABC be a right traingle in which AB = 6 cm , BC = 8 cm and $\angle B = 90^\circ$ BD is the perpendicular from from B on AC . The circle through B , C , D is draw . Contruct the tangents from A to this circle .

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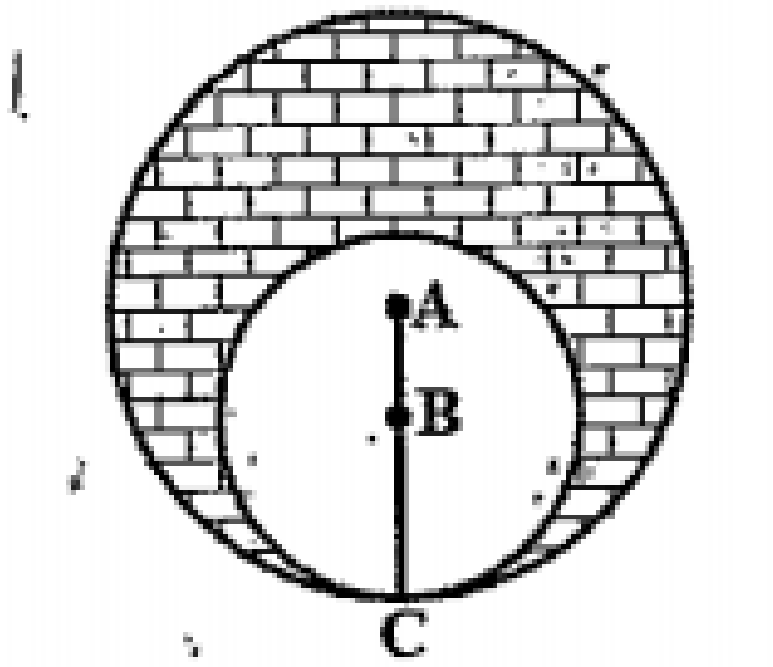
57. find the area of the shaded region in figure, given in which two circles with centers A and B touch each other at the point C. If AC= 8cm and AB=3cm.



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58. How many tangents can be draw to a circle from a point on the same circle . Why ?

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59. Find the length of the tangent from a point , which is 9.1 cm away from the centre of the circle , whose radius is 8.4 cm.

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60. "The length of the tangent from an external point 'P' to a circle with centre 'O' is always less than OP " . Is this statement true ? Give reasons .

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61. The length of the minute hand of a clock is 3.5 cm Find the area swept by minute hand in 30 minutes . $\left(\text{use}\pi = \frac{22}{7}\right)$

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62. The length of the tangent to a circle from a point 17 cm from its centre is 8 cm . Find the radius of the circle .

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63. A point P is 25 cm from the centre O of the circle. The length of the tangent drawn from P to the circle is 24 cm. Find the radius of the circle.

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64. Find the length of the tangent from a point 13 cm away from the centre of the circle of radius 5 cm.

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65. Prove that "in two concetric circles, a chord of the bigger circle , that touches the smaller circle is bisected at the point of contanct with smaller circle " .

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66. From an external point two tangents are drawn to a circle.A line joining the external point and the centre of the circle bisects the line between the tangents. Is this true or not? Justify your answer.

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67. AB is a chord of the circle and AOC is its diameter , such that $\angle ACB = 60^\circ$. If AT is

the tangent to the circle at the point A , then find the measure of $\angle BAT$

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68. Draw a circle with 5 cm radius and construst a pair of tangents to the circle .

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69. Draw a circle wih radius 3 cm and construct a pair of tangents from a point 8 cm away

from the centre .

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70. Draw a circle of radius 5 cm . From a point 8 cm away from its centre , construct a pair of tangents to the circle . Find the lengths of tangents .

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71. Two concentric circles of radii 10 cm and 6 cm are drawn . Find the length of the chord of the larger circle which touches the smaller circle .

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72. Draw a circle of diameter 6 cm from a point 5 cm away from its centre . Construct the pair of tangents to the circle and measure their length .

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73. Draw a two conecentric circles of radii 1.5 cm and 4 cm . From a point 10 cm away from its centre . Construct the pairs of tangent to the circles .

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74. A square ODEF is inscribed in a quadrant OPEQ of a circle and OD =$14\sqrt{2}$cm. Aarthi side

that the area of the shaded region is 224^2. Do you agree? Give reasons.

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75. Calculate the length of the tangent from a point 13 cm away from the center of a circle of radius 5 cm .

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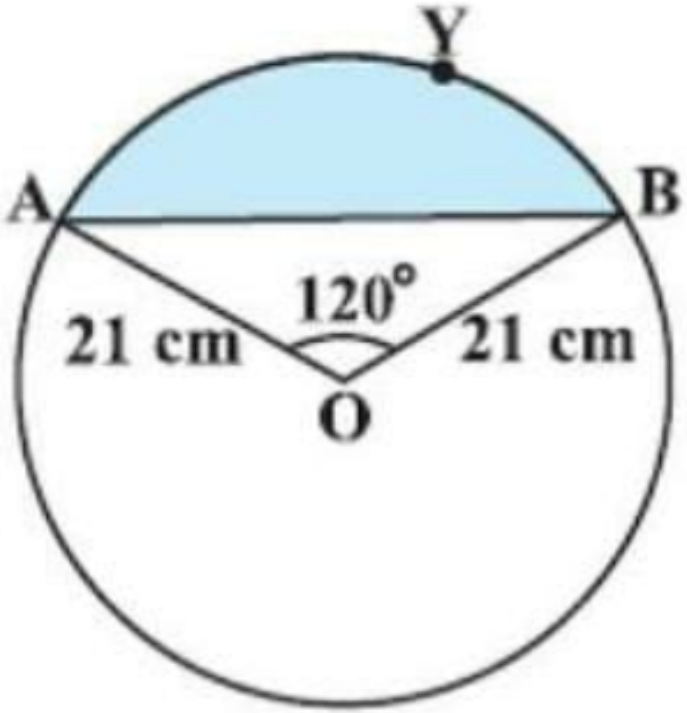
76. As shown in the figure , radius of the given circle is 21 cm and $\angle AOB = 120^\circ$. The find the area of segment AYB .



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77. Find the area of a right hexagon in scribed in a circle having 14 cm of radius .

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78. In a wall clock , length of minutes needle is 7 cm . The find the area covred by it in 10 minutes of time .

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79. How many tangnets can you draw to a circle , which are parallel to each other ?

A. 0

B. 2

C. 4

D. Infinite

Answer:

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80. The number of secant that can be drawn to a circle is .....

A. 0

B. 3

C. 2

D. 1

Answer:

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81. Which of the following is correct ?

(i) Maximum possible tangents that can be draw to a circle from a point 'P' is 2 .

(ii) The number of secants draw to a circle from a point at ecterior is 2

A. I only

B. Ii only

C. i and ii

D. Neither (i) nor (ii)

Answer:

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82. The length of a tangent to a circle from a point P is 12 cm and the radius of the circle is 5 cm , then the distance from point P to the centre of the circle is .....

A. 11 cm

B. 10 cm

C. 13 cm

D. 14 cm

Answer:

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83. From the adjacent figure $\angle APB = 40^\circ$ then $\angle AOB$=_____.

A. 110°

B. 140°

C. 80°

D. 160°

Answer:

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84. If $\overline{AP}$ and $\overline{AQ}$ are two tangents to a circle with centre O , such that $\angle POQ = 105^\circ$, then $\angle PAQ$

A. 105°

B. 90°

C. 75°

D. 65°

Answer:

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85. $\overline{AB}$ is a tangent drawn to a circle with centre O from an external point A ans B is a point of contact , then wich of the following is always true ?

(i) $OB > OA$

$OA > AB$

(iii) $AB > OB$

A. Only (i)

B. Only (ii)

C. (ii) and (iii)

D. ((ii)

Answer:

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86. The number of secant that can be drawn to a circle is .....

A. 0

B. 1

C. Infinite

D. 2

Answer:

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87. Tangents PA and PB inclined at an angle 60° as shown in the figure, the ratio of lengths of OA, OP and AP is

A. 1:5:3

B. 0.2:3:2

C. $\sqrt{3}$:2:1

D. $1:2:\sqrt{3}$

Answer:

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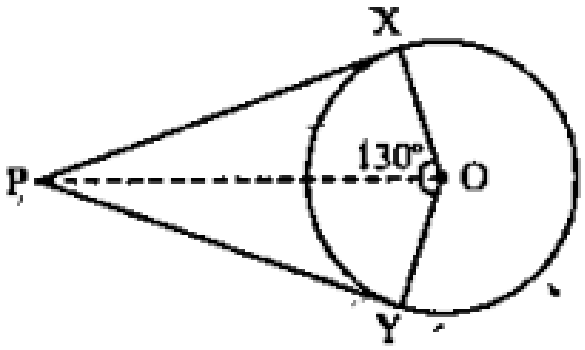
88. 

From the given figure, $\angle XOY = 130^\circ$, then $\angle XPO =$

A. 65°

B. 35°

C. 25°

D. 55°

Answer:

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89. The radius of the circumcircle of an isosceles triangle POR is equal to PO = PR, then the angle P is

A. 90°

B. 30°

C. 45°

D. 60°

Answer:

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90. A tangent PQ at a point P of a circle of radius 5 cm meets a line through the centre O at a point Q so that OQ = 12cm . Find length of PQ .

A. $\sqrt{79}$

B. $\sqrt{119}$

C. 119

D. 169

Answer:

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91. If raddi pf two concentric circle are 6 cm and 10 cm , then lngth of chord of the larger circle wchich is tangent to other is .....cm

A. 8

B. 12

C. 16

D. 20

Answer:

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92. The number of parallel tangents to a circle with a given tangent is .....

A. 1

B. 2

C. 3

D. 4

Answer:

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93. The length of the tangents to frome a point A to a circle of radius 3 cm is 4 cm then the distance between A and the centre to the circle is .....

A. 2 cm

B. 3 cm

C. 4 cm

D. 5 cm

Answer:

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94. The length of the tangnet draw from an ecterior point is 8 cm away from the centre of a circle of radius 6 cm is .....

A. 8 cm

B. 10 cm

C. 6 cm

D. 12 cm

Answer:

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95. Two concentric circles of radii 5 cm and 3 cm are draw . Find the length of the chord of

the larger circle which touches the smaller circle .

A. $2\sqrt{a^2 - b^2}$

B. $\sqrt{a^2 - b^2}$

C. $2\sqrt{a^2 + b^2}$

D. $\sqrt{a^2 + b^2}$

Answer:

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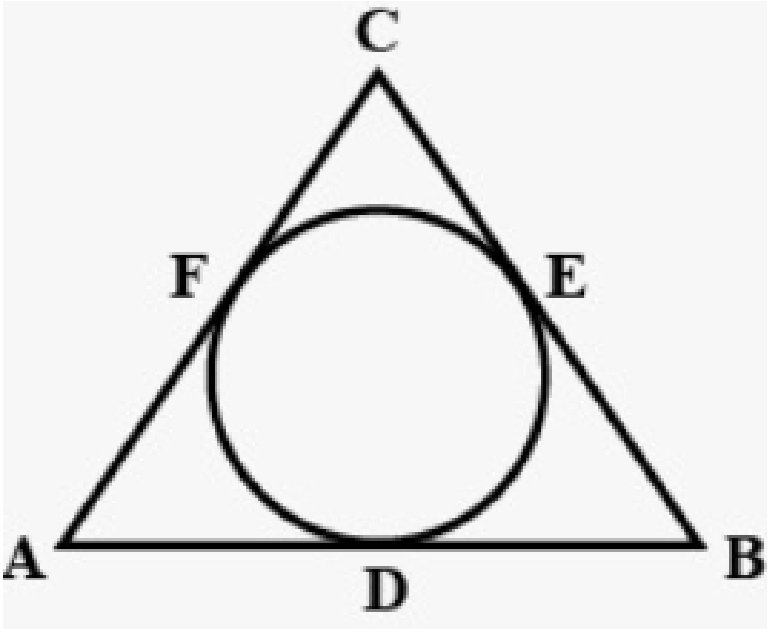
96. 

The semi perimeter of $\Delta = 28cm$ then $AF + BD + CE$ is .....

A. 23 cm

B. 28 cm

C. 56 cm

D. 14 cm

Answer:

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97. The length of the tangnet draw from an ecterior point is 8 cm away from the centre of a circle of radius 6 cm is .....

A. $2\sqrt{7}$ cm

B. $3\sqrt{7}$ cm

C. $\sqrt{7}$ cm

D. 10cm

Answer:

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98. Angle in a major segment is .....

A. an obtuse angle

B. an acute angle

C. right angle

D. none

Answer:

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99. The length of the tangent drawn to a circle with radius 'r' from a point P which is 'd' units from the centre is .....

A. $\sqrt{d^2 - r^2}$

B. $\sqrt{d^2 + r^2}$

C. $\sqrt{dr}$

D. $\sqrt{d+r}$

Answer:

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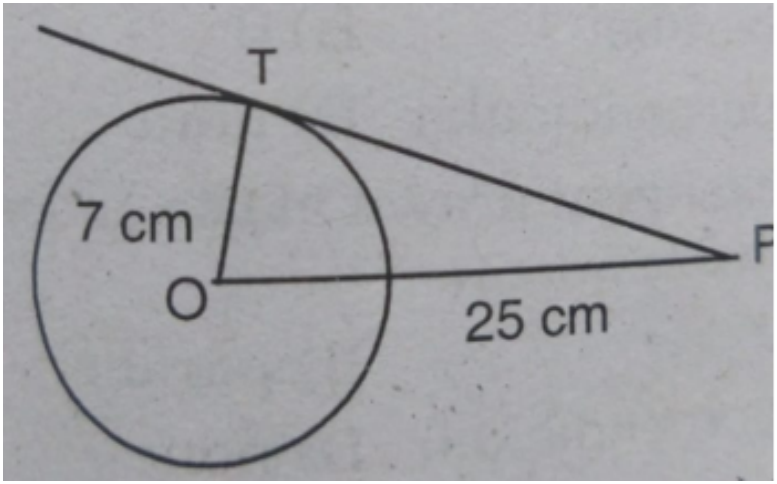
100. In the figure PT is a tngent drawn form P .

If th radius is 7 cm and OP is 25 cm , then the

length of the tangent is ..... Cm .



A. 18

B. 20

C. 24

D. 26

Answer:

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101. PQ is the chord of a circle . The tangent XR drawn at X meets PQ at R when produced . If XR = 12 cm , PQ = x cm , OR = (x-2) cm , the x = ...

A. 6 cm

B. 7 cm

C. 14 cm

D. 10 cm

Answer:

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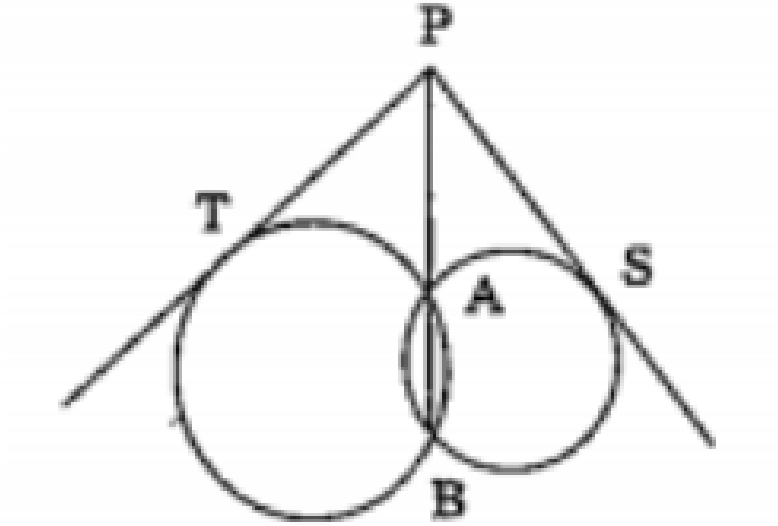
102. Two circles intersect at A, B, PS, PT are two tangents drawn from P which lies on AB to the two circles, then.....



A. PS = 2PT

B. PT=2 PS

C. PS=PT

D. $PS \neq PT$

Answer:

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103. In the figures AB is a diameter and Ac is chord of the circle such that $\angle BAC = 30^\circ$. If DC is a tangent , then ΔBCD is .....

A. isosceles

B. equilateral

C. right angled

D. acute angled

Answer:

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104. If two tangents inclined at an angle of 60° are drawn to a circle of radius 3 cm, then length of tangents is equal to.....m.

A. 6

B. $3\sqrt{3}$

C. 3

D. $\frac{3\sqrt{3}}{4}$

Answer:

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105. To draw a pair of tangents to a circle which are inclined to each other at an angle of 60° it is required to draw the tangents at the

end points of two radii inclined at an angle of

.....

A. 30°

B. 60°

C. 90°

D. 120°

Answer:

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106. The radius of a circle is equal to the sum of the circumfernces of two circles of diameters 36 cm and 20 cm is ..... cm .

A. 16 cm

B. 28 cm

C. 42 cm

D. 56 cm

Answer:

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107. If the radii of two concentric circles are 5 cm and 13 cm then the length of the chord of one circle which is tangent to the other circle is .....

A. 24 cm

B. 18 cm

C. 12 cm

D. 6 cm

Answer:

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108. If tangents PA and PB from a point P to a circle with centre O are inclined to each other at angle of 110° , then $\angle POA$ is equal to

A. 45°

B. 50°

C. 70°

D. 35°

Answer:

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109. In a right triangle ABC, right angled at B , BC = 15 cm and AB = 8 cm . A circle is inscribed in the traiangle ABC . The radius of the circle is .....

A. 1 cm

B. 3 cm

C. 5 cm

D. 2 cm

Answer:

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110. How many tangnet lines can be drawn to a circle from a point outside the circle ?

A. 1

B. 4

C. 2

D. None

Answer:

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111. Three circles are drawn with the vertices of a traingle as centres such that each circle touches the other two . If the sides of the traiangle are 2 cm , 3 cm , 4 cm find the diameter of the smallest circle .

A. 4 cm

B. 2 cm

C. 1 cm

D. 5 cm

Answer:

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112. A circle may have ..... parallel tangents utmost.

A. 10

B. 12

C. 9

D. 2

Answer:

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113. A tangent to a circle intersects it in ..... Point (s) .

A. 1

B. 2

C. 3

D. 4

Answer:

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114. A line segment joining any point on a circle is called its .....

A. diameter

B. tangent

C. chord

D. none

Answer:

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115. A line which intersects the given circle at two distinct points is called a .....

A. tangent

B. secant

C. circle

D. centre

Answer:

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116. The common point to a tangent and a circle is called .....

A. point of contact

B. circle

C. tangent

D. none

Answer:

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117. Angle between the tangent and radius drawn through the point of contact is .....

A. 100°

B. 70°

C. 80°

D. 90°

Answer:

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118. The circumference of a circle is 100 cm . The side of a square inscribed in the circle is ..... Cm .

A. $\frac{1}{\pi}$

B. $\frac{5\sqrt{2}}{\pi}$

C. $\frac{50\sqrt{2}}{\pi}$

D. $5\sqrt{2}$

Answer:

Watch Video Solution

119. The area of a square inscribed in a circle of radius 8 cm is $.....cm^2$.

A. 118

B. 129

C. 160

D. 128

Answer:

Watch Video Solution

120. The area of a circle that can be inscribed in a square of side 6 cm is .....

A. 9π

B. 12π

C. 120π

D. none

Answer:

Watch Video Solution

121. The perimeter of a quadrant of a circle of radius $\frac{7}{2}$ cm is .....cm

A. 9.5

B. 12.5

C. 10.5

D. 2

Answer:

Watch Video Solution

122. The number of tangents at one point of a circle is .....

A. 1

B. 2

C. 3

D. 10

Answer:

Watch Video Solution

123. Number of tangents to a circle which are parallel to a secant are .....

A. 1

B. 10

C. 9

D. 2

Answer:

Watch Video Solution

124. .....tangent can be drawn from a point inside a circle .

A. No

B. 1

C. 4

D. None

Answer:

Watch Video Solution

125. A tangent to a circle is a line which ..... The circleexactly at one point .

A. touches

B. 2

C. separates

D. none

Answer:

Watch Video Solution

126. A line which is perpendicular to the radius of the circle through the point of contact is called a .....

A. secant

B. tangent

C. chord

D. none

Answer:

Watch Video Solution

127. The tangents drawn at the end point of radius is .....

A. parallel

B. 0

C. perpendicular

D. none

Answer:

Watch Video Solution

128. The tangents drawn at the end point of radius is .....

A. 0

B. parallel

C. perpendicular

D. none

Answer:

Watch Video Solution

129. Tangents drawn from an exterior point of a circle are.....

A. not equal

B. parallel

C. equal

D. none

Answer:

Watch Video Solution

130. A secant meets a circle in .....points .

A. 2

B. 4

C. 3

D. 1

Answer:

Watch Video Solution

131. A secant meets a circle in .....points .

A. 10

B. 9

C. 7

D. 1

Answer:

Watch Video Solution

132. Sum of the central angles in a circle is .....

A. 360°

B. 300°

C. 180°

D. 110°

Answer:

Watch Video Solution

133. Angle in a semi -circle at the centre is .....

A. 100°

B. 180°

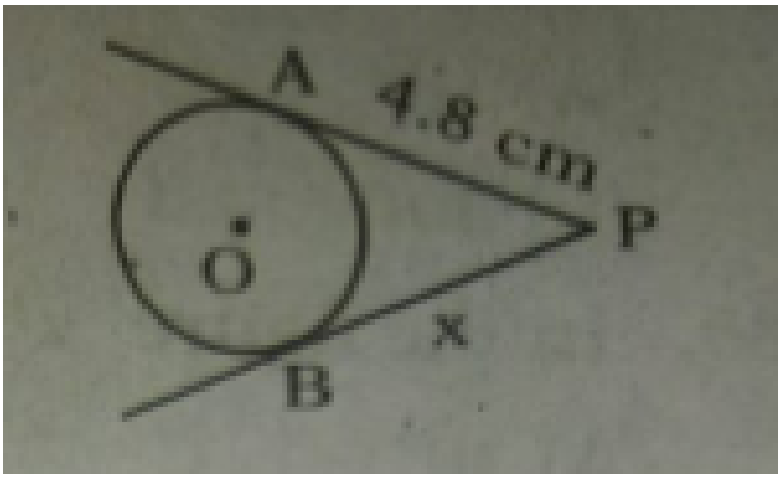
C. 200°

D. 80°

Answer:

Watch Video Solution

134. From the figure , x = ...cm.



A. 8.4

B. 8.8

C. 4.8

D. 4

Answer:

Watch Video Solution

135. Angle in a semi-circle is.....

A. 80°

B. 90°

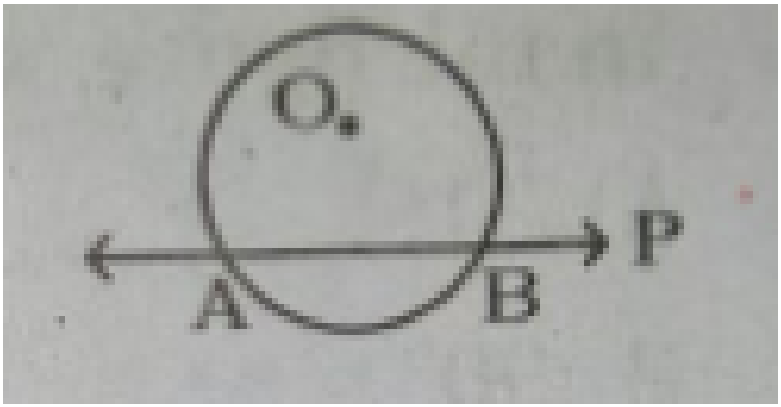
C. 100°

D. 110°

Answer:

Watch Video Solution

136. In the figure , P is called .....



A. secant

B. tangent

C. chord

D. none

Answer:

Watch Video Solution

137. Number of tangents drawn to a circle is .....

A. 1

B. 4

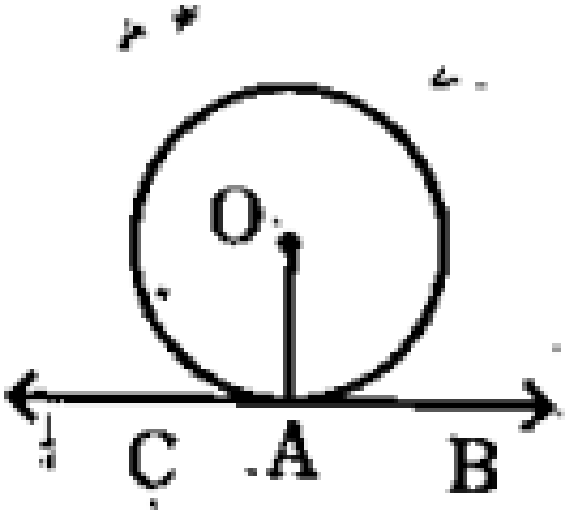
C. 3

D. infinite

Answer:

Watch Video Solution

138.



In the figure, $\angle AOB$ = ...

A. 80°

B. 60°

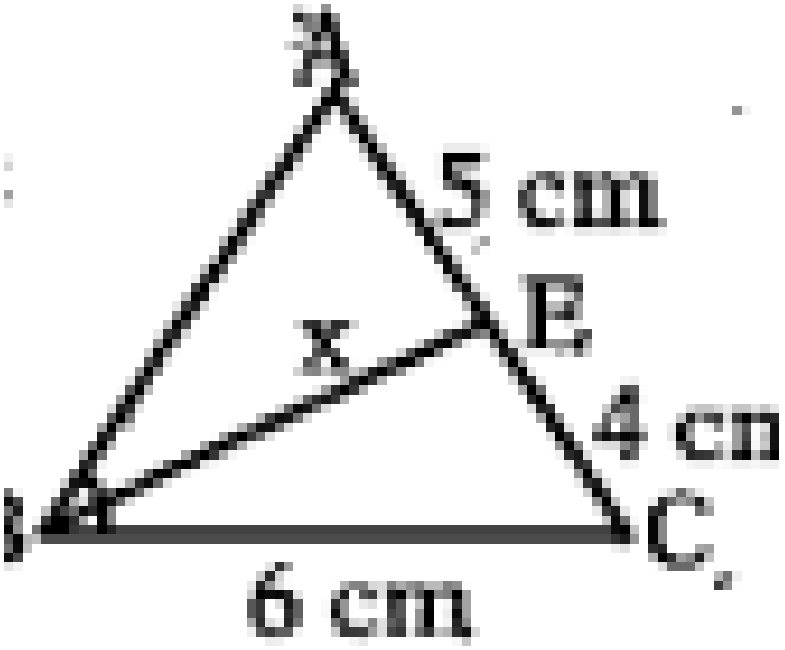
C. 90°

D. 100°

Answer:

 Watch Video Solution

139. In the figure, $x =$ .....



A. 5

B. 6

C. 8.2

D. 10

Answer:

Watch Video Solution

140. Angle in a minor segment is .....

A. acute

B. 60°

C. obtuse

D. none

Answer:

Watch Video Solution

141. In a circle d = 10.2 cm , then r = ...cm .

A. 4.1

B. 5.1

C. 4.6

D. 5.6

Answer:

Watch Video Solution

142. The longest chord in a circle is .....

A. diameter

B. radius

C. chords

D. none

Answer:

Watch Video Solution

143. Circles having saem centre are called ..... Circles .

A. triangle

B. concentric

C. trapezium

D. none

Answer:

 Watch Video Solution

144. Circles having saem radii are ..

A. congruent

B. not congruent

C. only similar

D. none

Answer:

Watch Video Solution

145. Area of circle is ..... Sq . Units .

A. $\frac{\pi}{r^2}$

B. πr^3

C. πr^2

D. $\pi^2 r^2$

Answer:

Watch Video Solution

146. Number of chords of a circle is .....

A. 20

B. 1

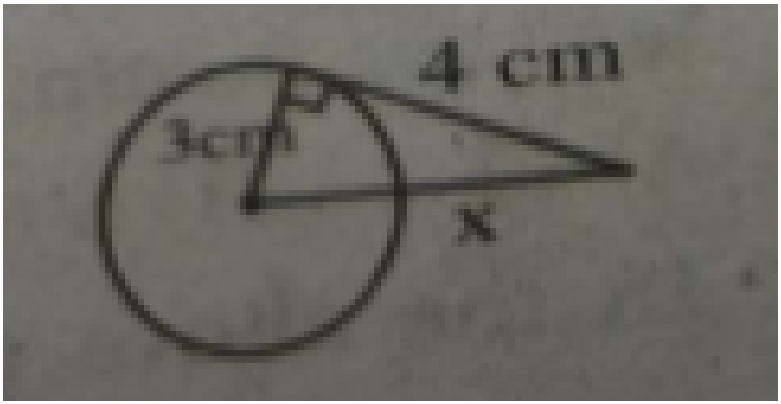
C. 211

D. infinite

Answer:

Watch Video Solution

147. In the figure x , ... Cm.



A. 1

B. 9

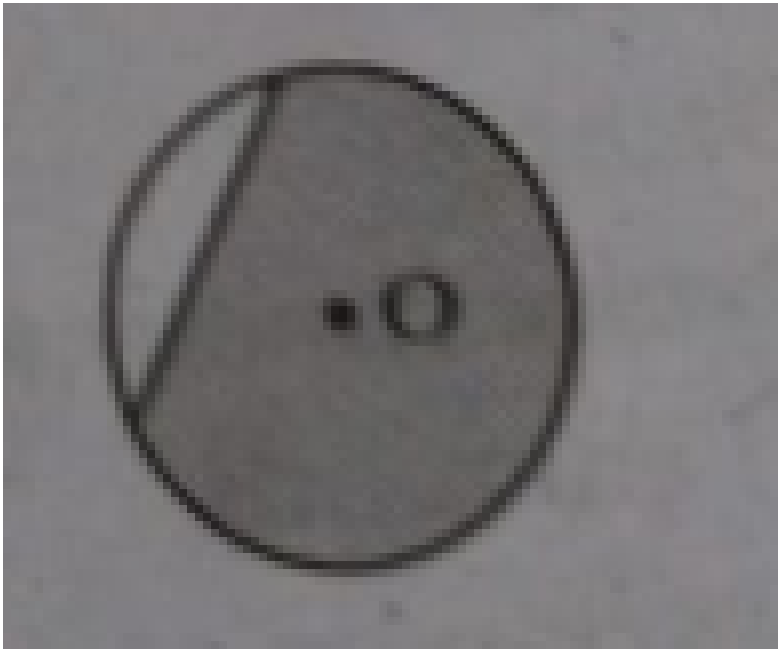
C. 8

D. 10

Answer:

Watch Video Solution

148. The shaded portion portion represents .....segment



A. minor segment

B. major segment

C. chord

D. none

Answer:

Watch Video Solution

149. Area of semi-circle is .....

A. πr^2

B. $\pi^2 r$

C. $\frac{\pi r^2}{2}$

D. πr

Answer:

Watch Video Solution

150. Number of circles passing through 3 collinear points in a plane is .....

A. 1

B. 0

C. 9

D. 12

Answer:

Watch Video Solution

151. Sum of opposite angles in a cyclic quadrilateral is .....

A. 100°

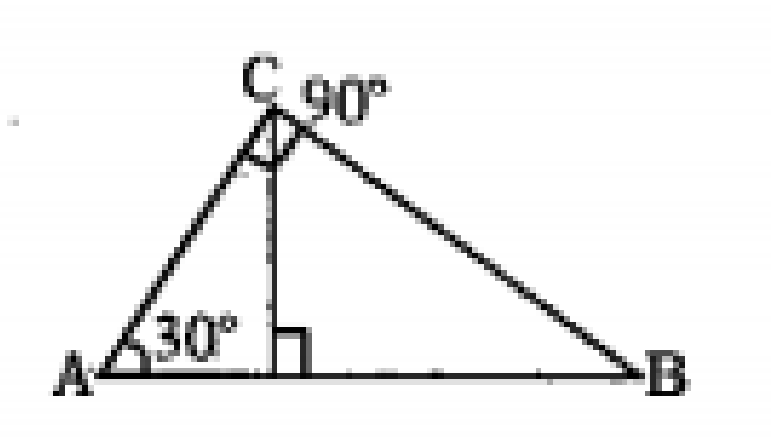
B. 180°

C. 190°

D. 200°

Answer:

152. In the figure, $\angle ABC =$ .....



A. 60°

B. 90°

C. 70°

D. 110°

Answer:

Watch Video Solution

153. Cyclic rhombus is a .....

A. rhombus

B. parallelogram

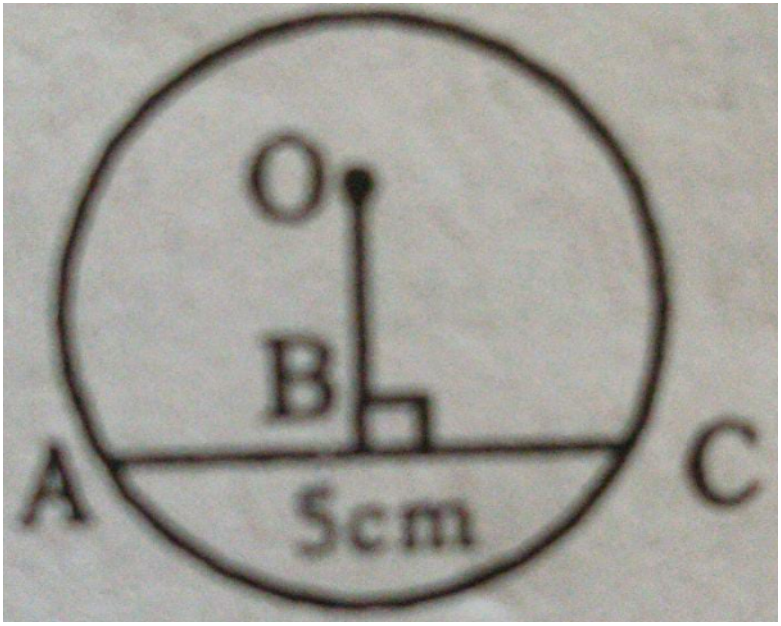
C. triangle

D. none

Answer:

Watch Video Solution

154. In the figure , BC = ...cm .



A. 1.4

B. 2.3

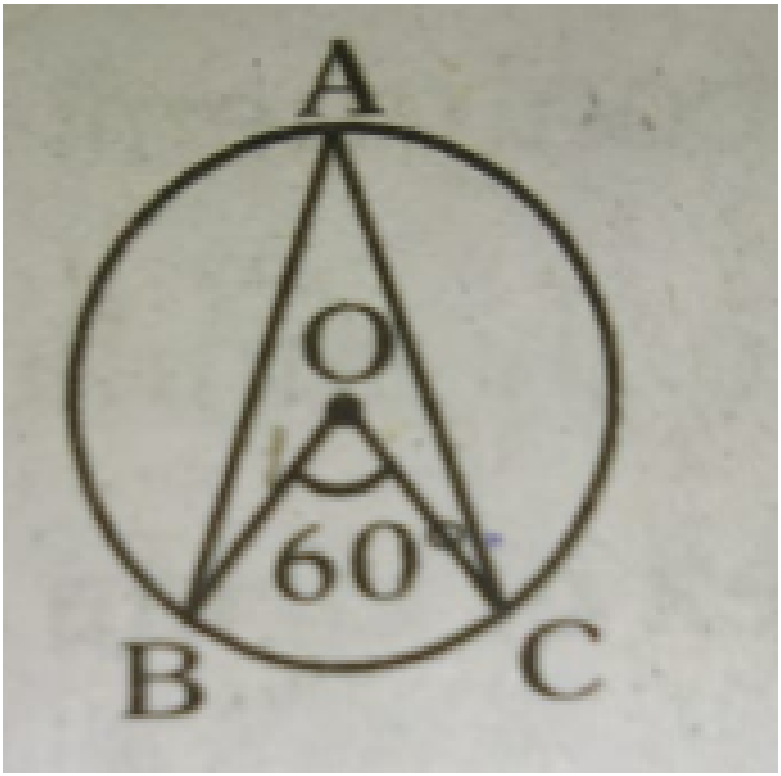
C. 1.5

D. 2.5

Answer:

 Watch Video Solution

155. In the figure , $\angle BAC$ = ...



A. 90°

B. 70°

C. 30°

D. none

Answer:

Watch Video Solution

156. Area of sector = ...

A. $\frac{x^\circ}{360} \times \pi r^2$

B. $\frac{x^\circ}{360} \times 2\pi r$

C. lb

D. none

Answer:

Watch Video Solution

157. Area of ring = ...

A. $\pi\left(R^2 - r^2\right)$

B. $\pi(R - r)$

C. $R^2 - r^2$

D. $\pi\left(R^2 - r^2 + 2r\right)$

Answer:

Watch Video Solution

158. Side of a square is 4 cm , then A= ..... cm^2

A. 64

B. 12

C. 16

D. 20

Answer:

Watch Video Solution

Watch Video Solution

159. Diameter of a circle passes through .....

A. equal

B. point

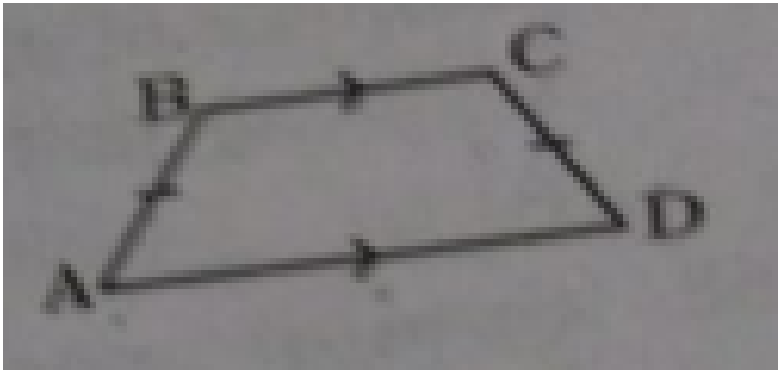
C. centre

D. none

Answer:

Watch Video Solution

160. The below figure represents .....



A. isosceles triangle

B. rectangle

C. triangle

D. none

Answer:

Watch Video Solution

161. ABCD is a cyclic quadrilateral then $\angle A + \angle C$ = ...

A. 100°

B. 120°

C. 109°

D. 180°

Answer:

Watch Video Solution

162. The shaded portion represents .....

A. major

B. minor

C. acute

D. none

Answer:

Watch Video Solution

163. Which of the following is a semicircle ?

A. (Picture)

B. (Picture)

C. (Picture)

D. all

Answer:

Watch Video Solution

164. Angle in the same segment of the circle .....

A. 30°

B. equal

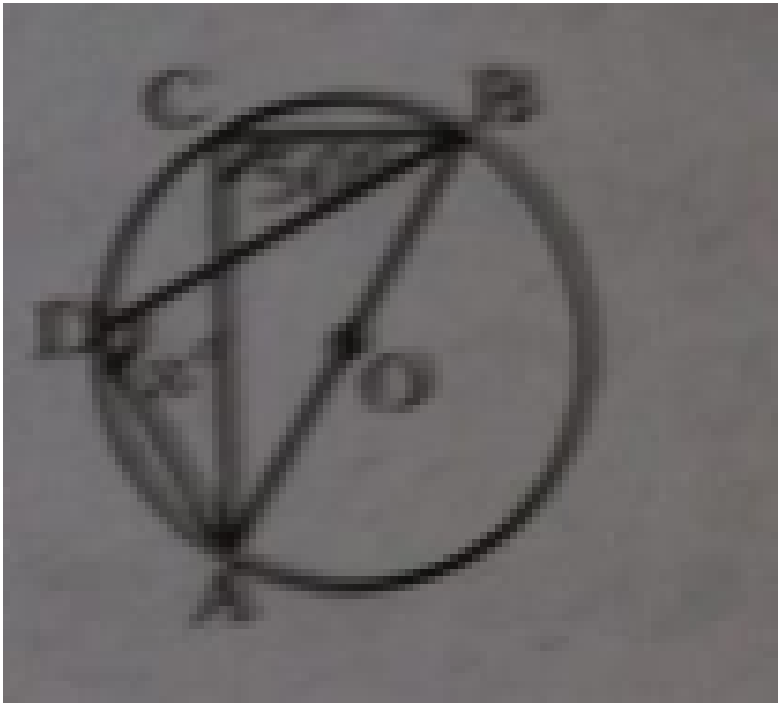
C. not equal

D. none

Answer:

Watch Video Solution

165. In the figure , x° = ...



A. 30°

B. 110°

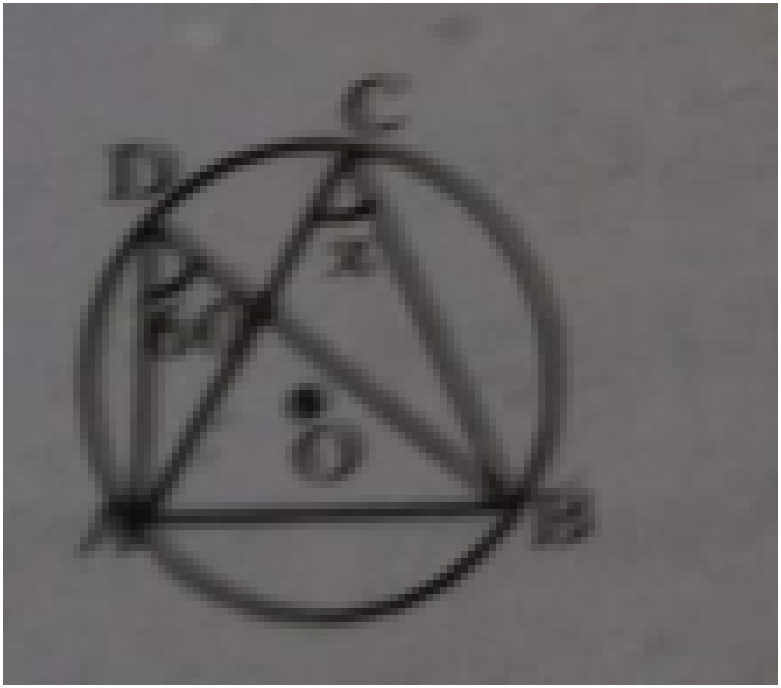
C. 60°

D. none

Answer:

Watch Video Solution

166. In the figure x = ...



A. 20°

B. 90°

C. 60°

D. 80°

Answer:

Watch Video Solution

167. Area of triangle = ...sq. units .

A. bh

B. $\frac{1}{2}bh$

C. $\frac{b+h}{2}$

D. none

Answer:

Watch Video Solution

168. Area of square whose is 3 cm in .....cm^2

A. 6

B. 12

C. 10

D. 9

Answer:

Watch Video Solution

169. Area of circle with radius r = ... cm^2

A. πr^4

B. πr

C. πr^2

D. $\pi / 2$

Answer:

Watch Video Solution

170. The area of square is 49 cm^2 then side is ..... Cm .

A. 12

B. 6

C. 8

D. 7

Answer:

Watch Video Solution

171. In the above problem a_5=...

A. 19

B. 16

C. 28

D. none

Answer:

Watch Video Solution

172. Angle made by minute hand in 1 m = ...

A. 6°

B. 12°

C. 10°

D. none

Answer:

Watch Video Solution

173. $x^\circ = 60^\circ, r = 14$ cm then area of sector = ... cm^2

A. 100.6

B. 102.66

C. 811.6

D. none

Answer:

Watch Video Solution

174. Area of equilateral triangle of side 'a' units is ..... sq. units.

A. $\frac{6\sqrt{3}}{4}a^2$

B. $\frac{6\sqrt{7}}{4}a^2$

C. $\frac{6}{7}\sqrt{3}a^2$

D. none

Answer:

Watch Video Solution

175. Parallelogram circumscribing a circle is a .....

A. parallelogram

B. rhombus

C. circle

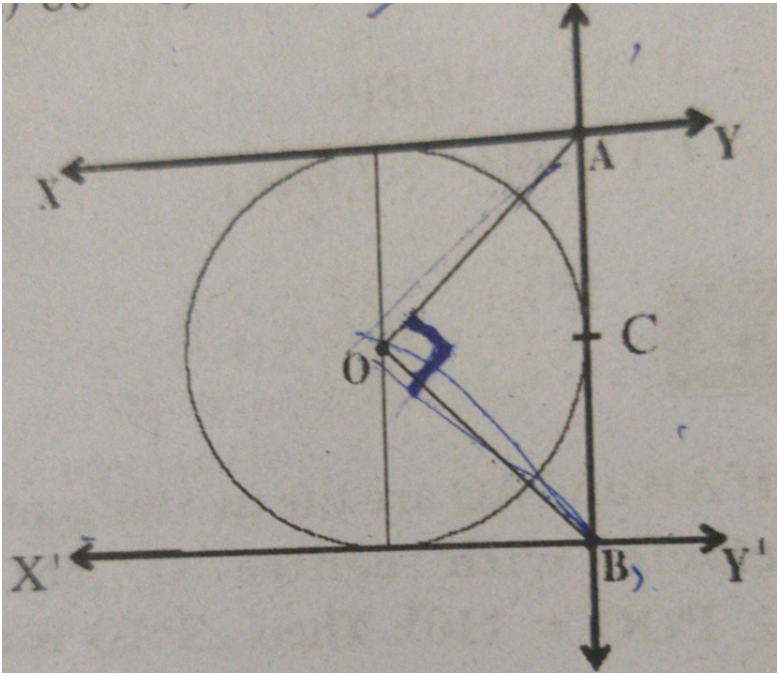
D. none

Answer:

Watch Video Solution

176. In the figure XY and X'Y' are two parallel tangents to a circle with centre O and another tangent AB with point of cantact C

intersecting XY at A and X'Y' at B then `angle

AOB= 

A. 75°

B. 95°

C. 70°

D. 90°

Answer:

Watch Video Solution

177. Choose the correct answer and give justification for each .

The angles between a tangent to a circle and the radius draw at the point of contact is

A. 60°

B. 70°

C. 90°

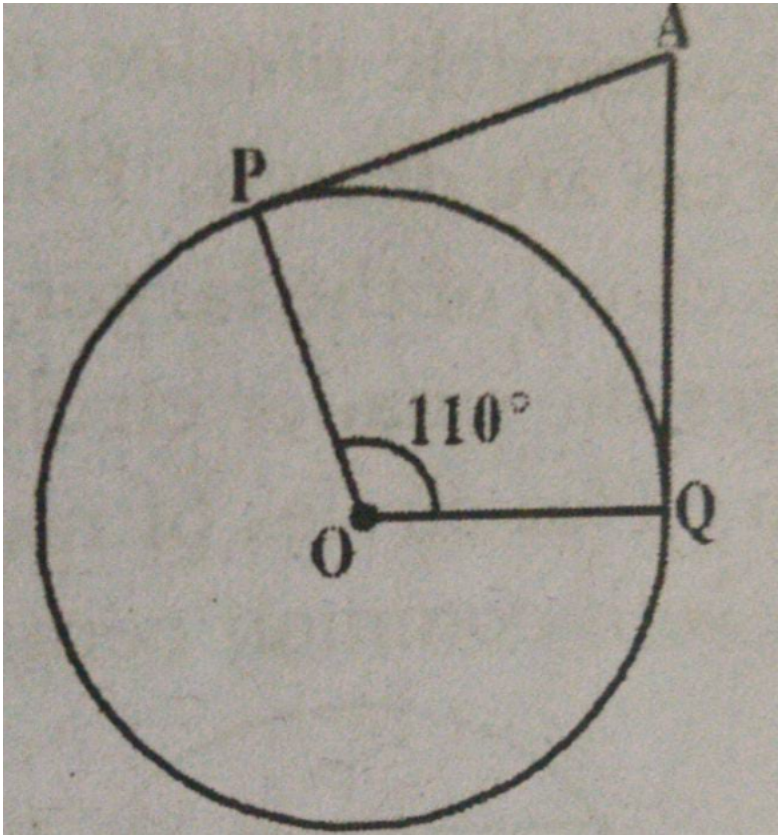
D. 20°

Answer:

Watch Video Solution

178. If AP and AQ are the two tangents a circle with centre O , so that

$\angle POQ = 110^\circ$, Then $\angle PAQ$ is equal to



A. 70°`

B. 60°

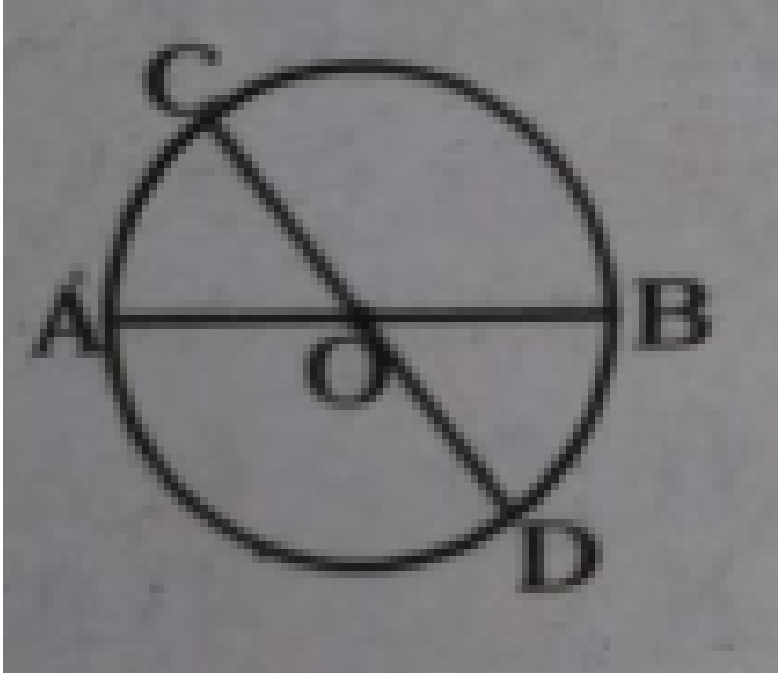
C. 65°

D. 75°

Answer:

Watch Video Solution

179. In the figure AB , = 6.2cm then CD = ... cm .



A. 5.2

B. 6.2

C. 8.2

D. none

Answer:

Watch Video Solution

180. Area of circle interms of diameter is .....

A. $\frac{\pi d^2}{4}$

B. πr^2

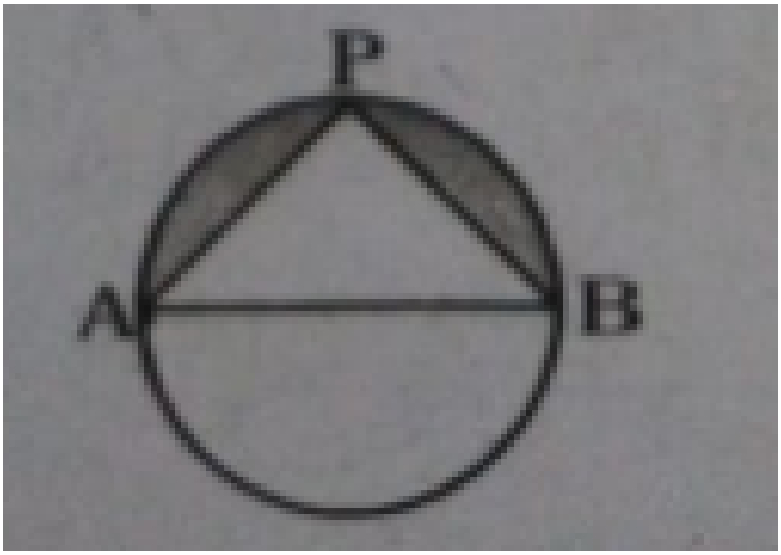
C. $\frac{\pi d^2}{14}$

D. all

Answer:

Watch Video Solution

181. In the figure AP , = 12 cm , PB = 16 cm and `pi=3 then perimeter of shaded region is ..... Cm .



A. 51

B. 70

C. 58

D. 68

Answer:

Watch Video Solution

182. A bicycle wheel makes 75 revolutions per minute to maintain a speed of 8.91 km per hour then diameter of the wheel is ..... m .

A. 6.3

B. 0.63

C. 8.1

D. none

Answer:

 Watch Video Solution

183. Angle described by hour hand in 12 hoours is .....

A. 90°

B. 200°

C. 360°

D. 180°

Answer:

Watch Video Solution

184. Each angle in a square is .....

A. 85°

B. right angle

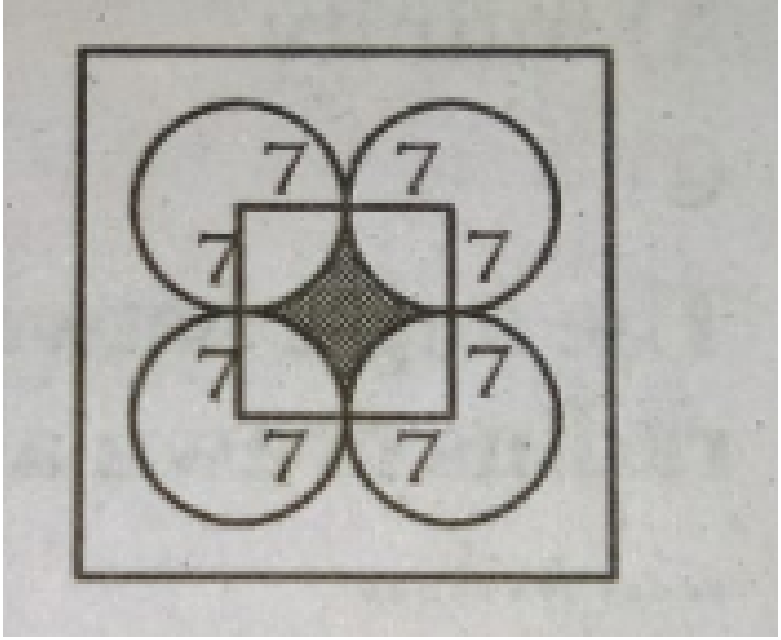
C. 60°

D. 70°

Answer:

Watch Video Solution

185. In the figure , the area of shaded region is ..... cm^2.



A. 74

B. 60

C. 82

D. 42

Answer:

Watch Video Solution

186. Perimeter of semicircle is ..... Units .

A. $\frac{36r}{7}$

B. $\frac{18}{7}r$

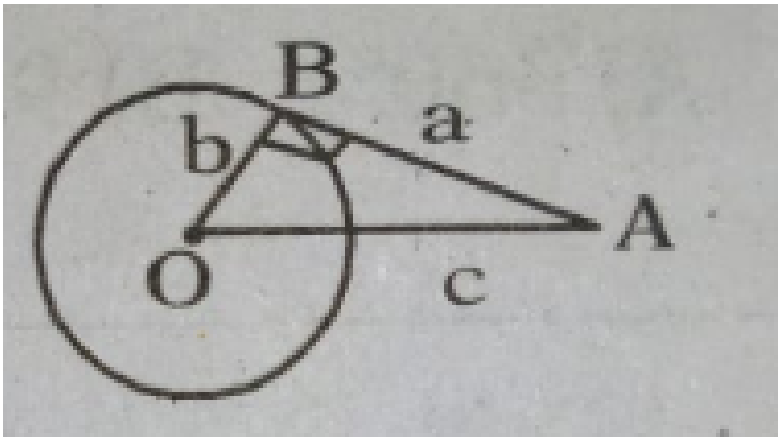
C. $\frac{9}{17}r$

D. none

Answer:

Watch Video Solution

187. In the figure the relation among a , b and c is .....



A. $c^2 = a^2 + b^2$

B. $c^2 - a^2 = 2b^2$

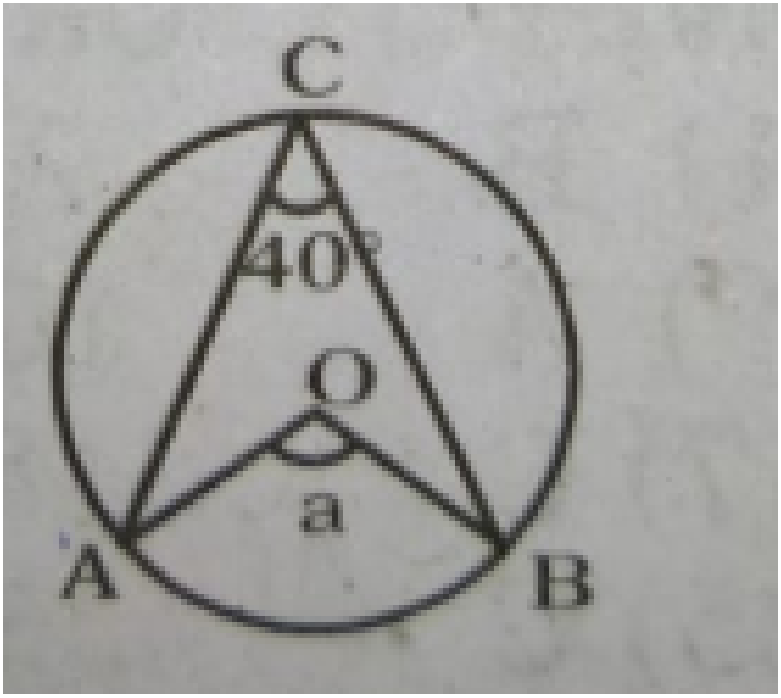
C. $c^2 + b^2 = a^2$

D. all

Answer:

Watch Video Solution

188. In the figure , a = ...



A. 100°

B. 170°

C. 80°

D. 90°

Answer:

Watch Video Solution

189. Perimeter of sectors = ...

A. $l + 2r$

B. $l - r$

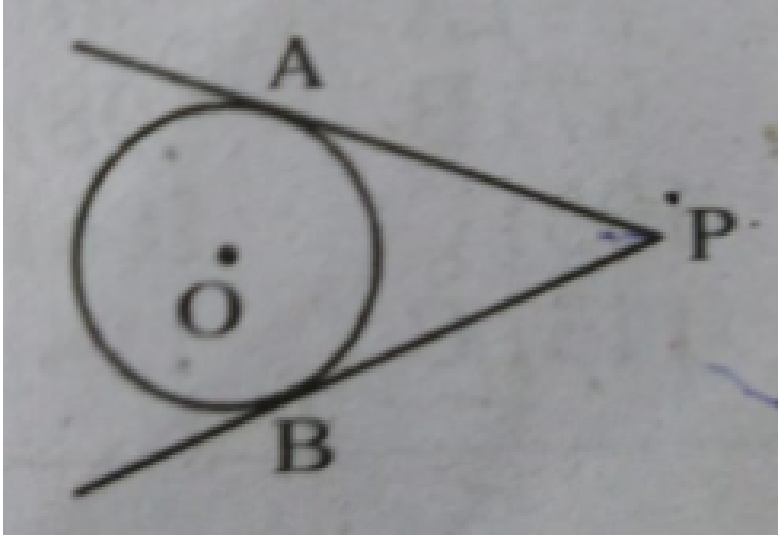
C. $l - 2r$

D. none

Answer:

Watch Video Solution

190. What do you observe from the below figure ?



A. $PA < PB$

B. $PA > PB$

C. $PA = PB$

D. none

Answer:

Watch Video Solution

191. The radius of a circle is doubled then its area becomes ..... Times.

A. 5

B. 4

C. 9

D. none

Answer:

Watch Video Solution

192. In the given figure, $\angle APB = 60^\circ$ and OP = 10 cm. then PA = ...cm.

A. 5

B. $5\sqrt{2}$

C. $5\sqrt{3}$

D. 20

Answer:

Watch Video Solution

193. The maximum nuber of possible tangents that can be draw to a circle is .....

A. infinity

B. 2

C. 4

D. 1

Answer:

 Watch Video Solution

194. Angle between the tangent and radius drawn through the point of contact is .....

A. 60°

B. 30°

C. 45°

D. 90°

Answer:

Watch Video Solution

195. If a circle is inscribed in a Quadrilateral then AB +CD= .....

A. $BC + DA$

B. $AC + BD$

C. $2AC + 2BD$

D. $2BC + 2DA$

Answer:

Watch Video Solution

196. The angle made at the centre of a circle is .....

A. 360°

B. 90°

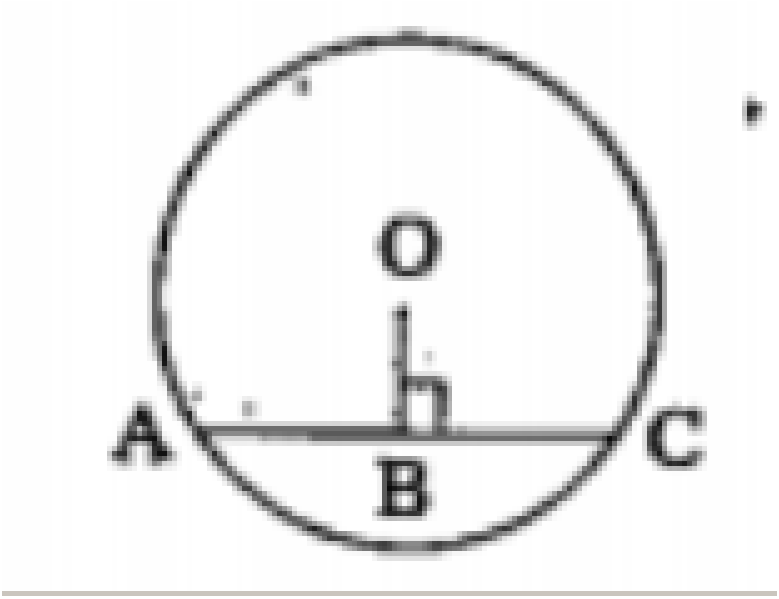
C. 280°

D. 60°

Answer:

Watch Video Solution

197. In the adjoint figure AC = 5 , so BC = ...cm



A. 5 cm

B. 7.5 cm

C. 2.5 cm

D. 10 cm

Answer:

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198. The number of secant that can be drawn to a circle is .....

A. 2

B. 1

C. infinity

D. 0

Answer:

Watch Video Solution

199. The diameter of a circle is 10.2 cm then its radius is ..... Cm .

A. 5.1

B. 20.4

C. 10.5

D. 15.3

Answer:

Watch Video Solution

200. If 'r' is the radius of a semi-circle then its perimeter is .....

A. $\pi r + 2r(\text{ or }) r[\pi + 2](\text{ or }) \frac{36}{7} r$

B. $\pi + r$

C. $\pi r + 3r$

D. πr

Answer:

Watch Video Solution

201. PA and PB are two tangents drawn to a circle with center O from an external point P. If $\angle APB = 30^\circ$, then $\angle AOB$= .....

A. 90°

B. 60°

C. 45°

D. 30°

Answer:

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