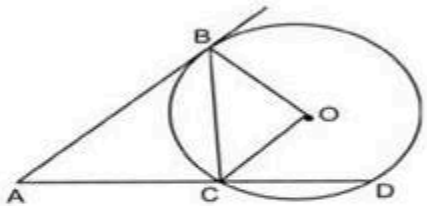
GEOMETRY CIRCLE CLASS 2 – PRACTICE PDF (ASSIGNMENT 7)

. In below figure Chord BC subtends an angle of 90 degree at centre, IF AB=20 cm and area of quadrilateral ACOB is 48 Sq.cm. Find the radius of the circle.



a) 6

b) 4

c) 8

d) 7

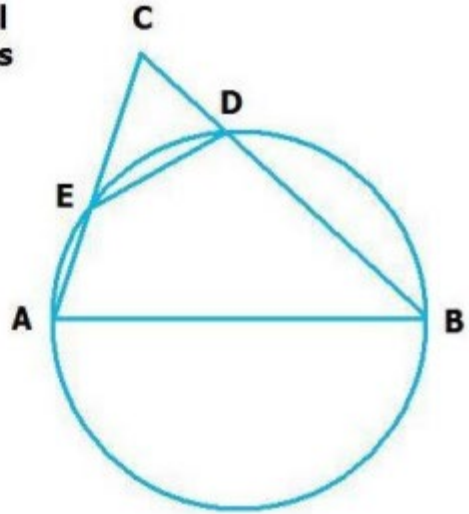
It is given that AEBD is a cyclic quadrilateral and AB is the diameter of the circle and ED is equal to the radius of the circle. AE and BD are extended to meet at C. Find the angle ACB

a) 30

b) 45

c) 60

d) 75



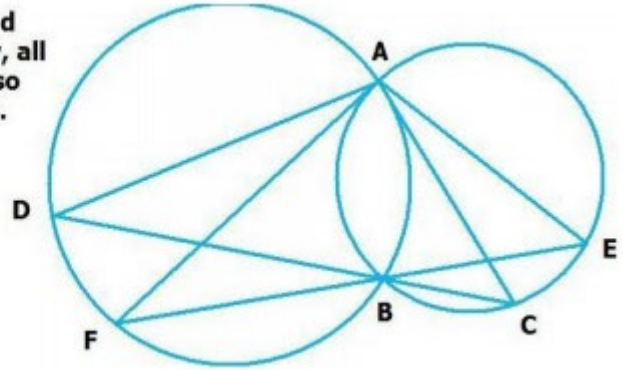
It is given that two circles intersect at A and B. CBD and EBF are two straight lines. Now, all the points C, D, E, F are joined to A. It is also given that angle DAF = 25°. Find angle CAE.

a) 12.5

b) 25

c) 50

d) None



Two tangents AB and AC are drawn from an external point A to a circle with a centre at O. Find the angle BAC, if angle OBC = 30°.

a) 30 b) 45 c) 60 d) 90

AB is chord of length 24 units of the circle with centre O and radius 13. Tangents at the point A and B intersects at C. Find the length AC

a) 28 b) 30 c) 31.2 d) 33.8

A circle of radius 4 units is inscribed in a triangle ABC (means circle touches all the sides of the triangle). It is given that circle touches BC at D such that BD = 6 and DC = 8. Find the length of sides AB and AC.

a) 13 and 15 b) 12 and 14 c) 13 and 16 d) 14 and 16

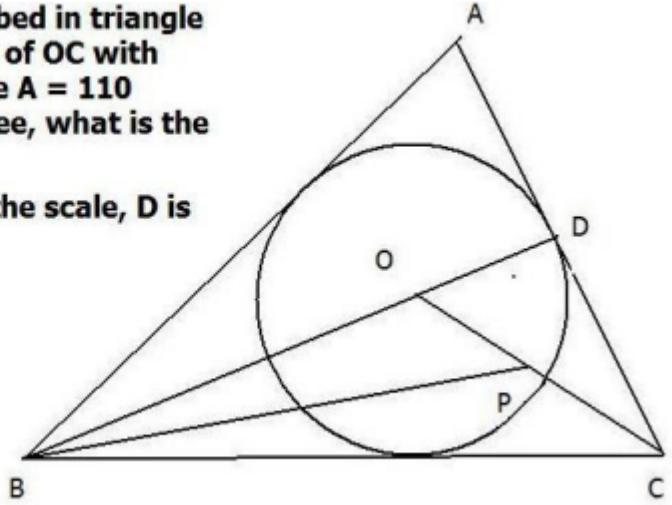
Two circles with centre A and B are inside a bigger circle with centre C and radius 10, they all are tangent to each other. If ABC forms a triangle, then find the perimeter of the triangle

a) 15 b) 20 c) 25 d) 30

A circle with center O is inscribed in triangle ABC. Let P be the intersection of OC with bisector of angle OBC. If angle A = 110 degree and angle B = 40 degree, what is the measure of angle BPD?

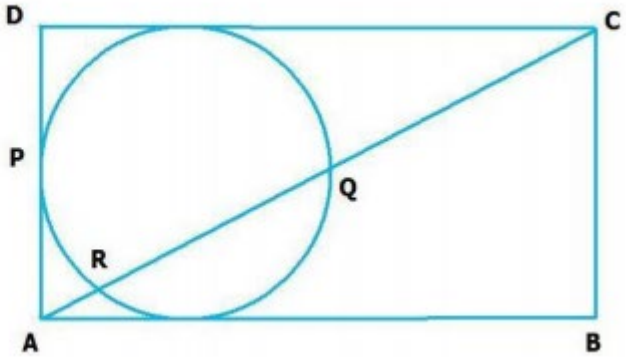
Note:- Figure is not drawn to the scale, D is not the point of tangent.

a) 100
b) 105
c) 110
d) 120

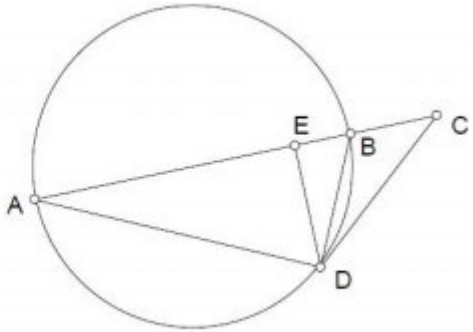


. ABCD is a rectangle such that AB = 2AD. A circle is grawn such that it touches AB, CD and AD. If radius of circle is 10 units, then find the length of chord PR. P is the point where circle touches AD

a) 10
b) $4\sqrt{5}$
c) $2\sqrt{10}$
d) $4\sqrt{6}$

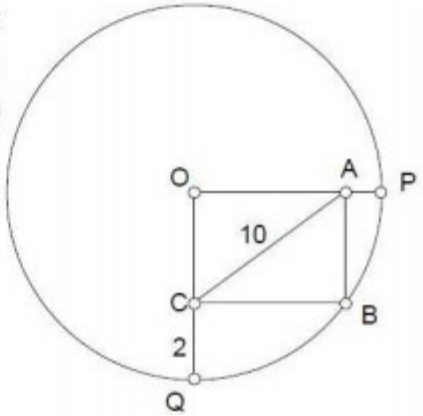


In the figure, AB is a diameter of the circle and C is a point on AB produced. CD is tangent to the circle at D and E is the foot of the perpendicular from D to AB. If $AD = 6$ and $\angle CDB = 30°$, find the area of ΔDEB.



a) 3
b) $(3\sqrt{3})/2$
c) $2\sqrt{3}$
d) $3\sqrt{3}$

In the figure, O is the centre of the circle, B is a point on the circumference and $OABC$ is a rectangle. OA and OC are produced to meet the circle at P and Q respectively. If $AC = 10$ and $CQ = 2$, find AP.



a) 2

b) $2\sqrt{2}$

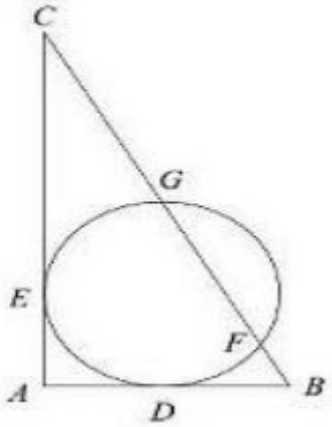
b) 4

d) $4\sqrt{2}$

In the figure, ΔABC is right-angled at A. AB and AC are tangent to the circle at D and E respectively, and BC meets the circle at F and G. If $AE = 8$, $EC = 15$ and $CG = 9$, and that $AB = \frac{m}{n}$ in lowest term, find $m+n$.

a) 184 b) 189

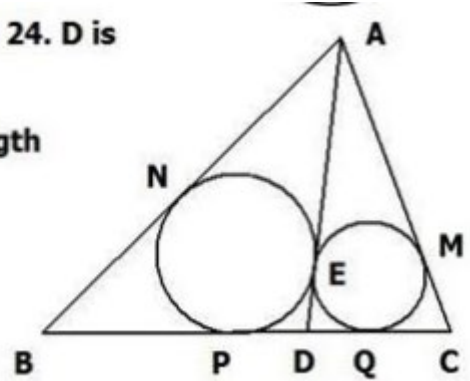
c) 195 d) 199



In the triangle ABC, AC = 10, AB = 18,BC= 24. D is point on BC such that the two circles inscribed in the triangles ABD and ADC each other at a point E on AD. Find the length of DC

a) 8 b) 6

c) 10 d) 7.5



In a Δ PQR , PS is a median drawn from vertex P to QR . QT is internal angle bisector from Q to PR. PQ = 7 units , QR = 18 units , PT = TS . Find the side PR

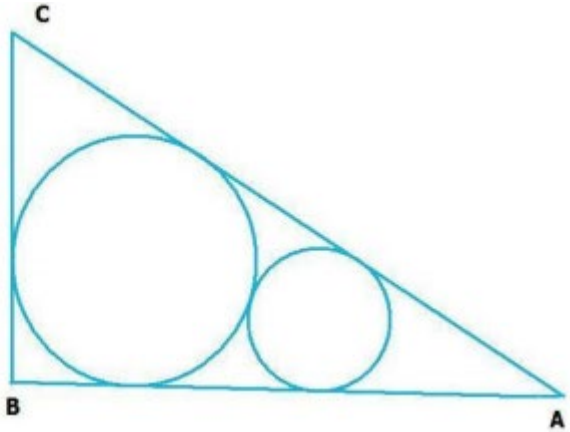
Two circles are inscribed in the right angle triangle triangle ABC such that the smaller circle touches the sides AB and AB while the larger one touches all the sides, also they touch each other. If radius of smaller circle is 1 and that of larger is 4, the find the length of side BC.

a) 28

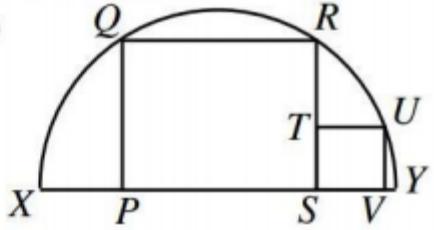
b) 30

c) 32

d) None



In the diagram, a semi-circle has diameter XY. Rectangle $PQRS$ is inscribed in the semi-circle with $PQ = 12$ and $QR = 28$. Square $STUV$ has T on RS, U on the semi-circle and V on XY. The area of $STUV$ is closest to

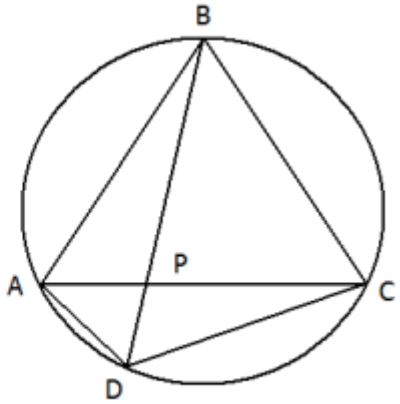


(A) 12 **(B)** 13 **(C)** 16

(D) 14 **(E)** 15

In the given figure ABCD is a cyclic quadrilateral, such that ABC is an equilateral triangle. It is given that AB = 36, AD = 20 and CD = 25, then find the length of AP.

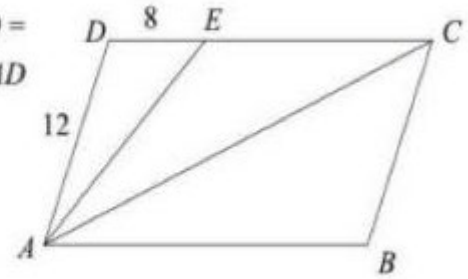
a) 16
b) 18
c) 20
d) 24



In the figure, $ABCD$ is a parallelogram with $\angle CAD = 2\angle CAB$. The bisector of $\angle CAD$ meets CD at E. If $AD = 12$ and $DE = 8$, find AC.

a) 12 b) 15

c) 16 d) 18



Let ABC be a triangle with $\angle A = 45°$. Let P be a point on the side BC with PB = 3 and PC = 5. If 'O' is the circumcentre of the triangle ABC then the length OP is equal to

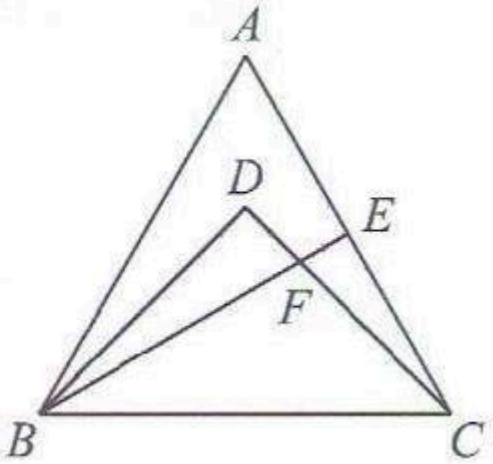
(A) $\sqrt{15}$ (B) $\sqrt{17}$ (C) $\sqrt{18}$ (D) $\sqrt{19}$

An isosceles trapezium is circumscribed about a circle . One of the parallel sides is thrice the other . Find the area of the trapezium , if its perimeter is 8 cm

a) 2 sqrt5 b) 2 sqrt3 c) 3 sqrt5 d) 5 sqrt 2

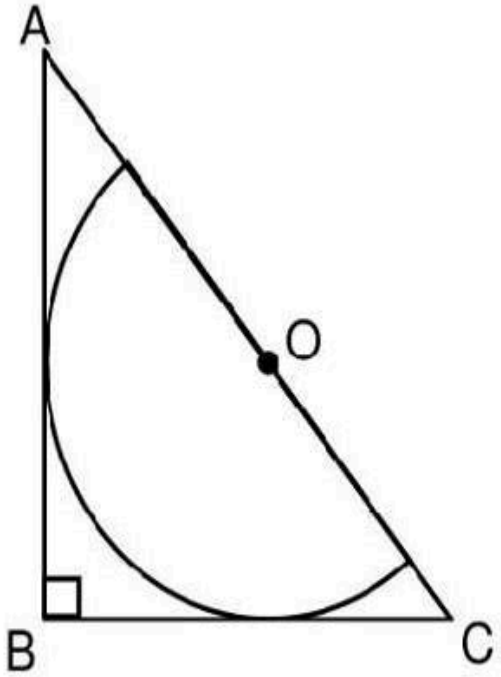
ABC is an equilateral triangle. D is a point inside the triangle such that BCD is a right isosceles triangle. The altitude BE of ABC intersects CD at F. What is the measure, in degrees, of $\angle CFE$?

(A) 85° (B) 80° (C) 75°
(D) 70° (E) 65°



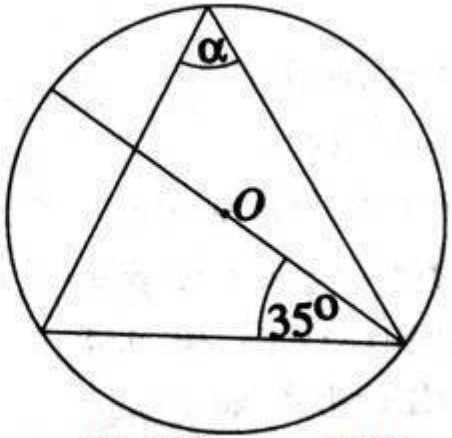
Convex Quadrilateral ABCD has sides AB=BC=7 , CD=5 and AD=3 . Given additionally that angle ABC=60 . Find BD.

In right triangle ABC, AC is divided by the point O, which is also centre of semicircle in such a way that AO = 15 units, CO = 20 units. Find the radius of semicircle.



In $\triangle ABC$ we have $AB = 7$, $AC = 8$, and $BC = 9$. Point D is on the circumscribed circle of the triangle so that $\overline{AD}$ bisects $\angle BAC$. What is the value of AD/CD?

In the diagram on the right, O= center of circle, the angle α is



A 35° B 50° C 55° D 60° E None of these