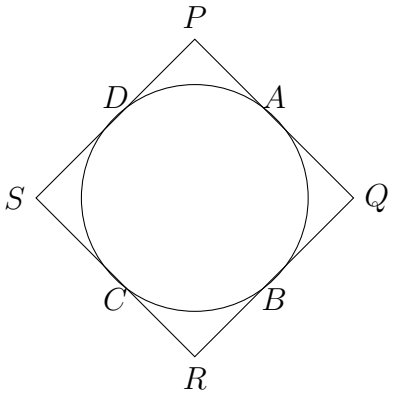
CIRCLE

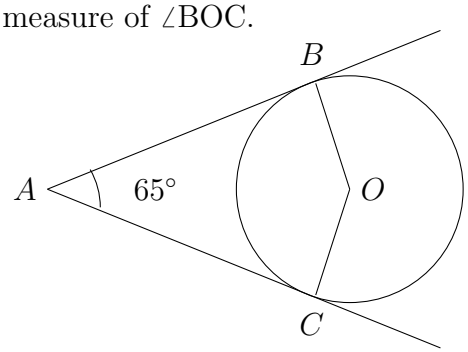
1. In the given figure,the quadrilateral PQRS circumscribes a circle.Here PA+CS is equal to :



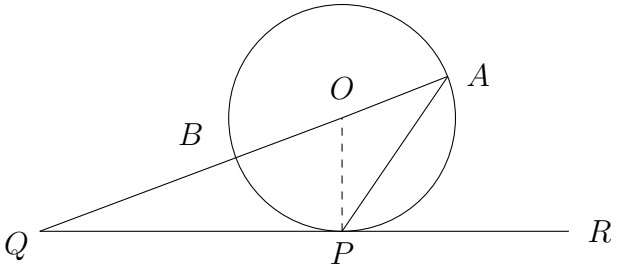
a)QR b)PR

c)PS d)PQ

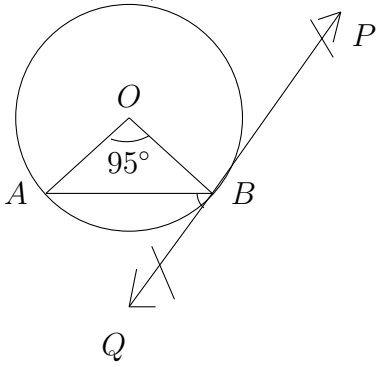
2. In the given figure,O is the center of the circle.AB and AC are tangents drawn to the circle from point A.If ∠BAC=65°, then find the measure of ∠BOC.



3. In the given figure, O is the centre of the circle and QPR is a tangent to it at P. Prove that ∠QAP+ ∠APR= 90°.



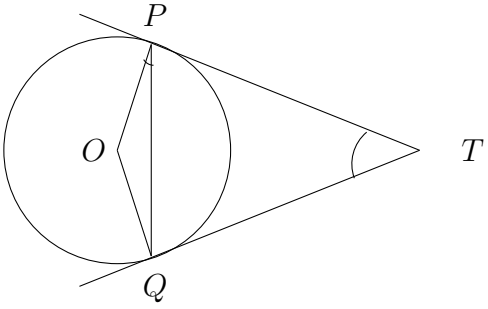
4. In the given figure PQ is tangent to the circle centred at O.If ∠AOB=95°, then the measure of ∠ABQ will be



A)47.5° B)42.5°

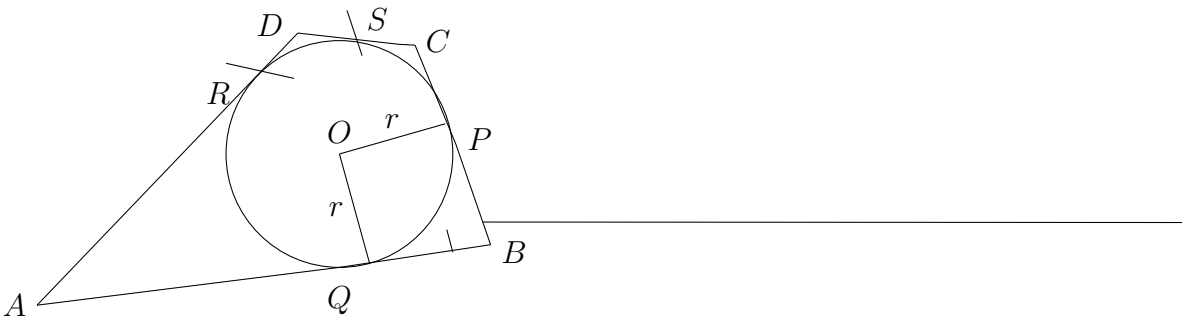
C)85° D)95°

5. (a) Two tangents TP and TQ are drawn between to a circle with centre O from an external point T. Prove that ∠PTQ = 2∠OPQ.

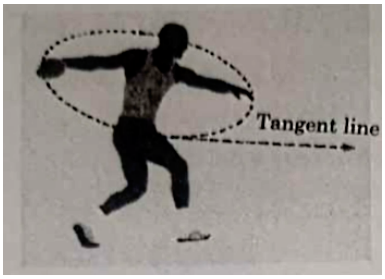


OR

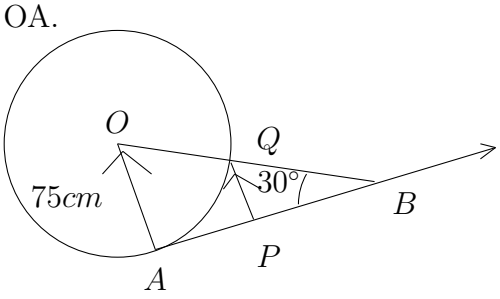
(b) In the given figure,a circle is inscribed in a quadrilateral ABCD in which ∠B =90°.If AD=17cm,AB=20cm and DS=3cm, then find the radius of the circle.



6. The discus throw is an event in which an athlete attempts to throw a discus.The athlete spins anti-clockwise around one and a half times through a circle, then releases the throw. When released, the discus travels along tangent to the circular spin orbit.



In the given figure, AB is one such tangent to a circle of radius 75 cm.Point O is centre of the circle and ∠ABO= 30°.PQ is parallel to OA.



Based on above information:

(a) find the length of AB.

(b) find the length of OB.

(c) find the length of AP.

OR

find the length of PQ.

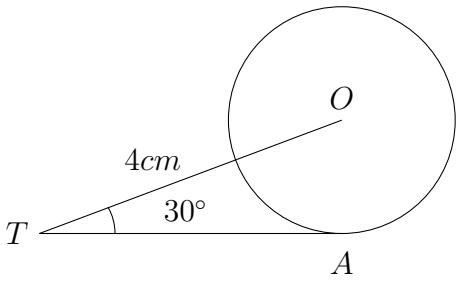
7. In the given figure, TA is a tangent to the circle with centre O such that OT=4cm, $\angle$OTA= 30°, then length of TA is:

   (a) $2\sqrt{3}cm$

   (b) 2 cm

   (c) $2\sqrt{2}$ cm

   (d) $\sqrt{3}$ cm



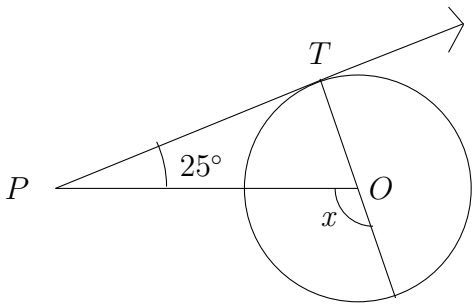
8. In the given figure,PT is a tangent at T to the circle with centre O.If $\angle$TPO=25°, then x is equal to:

   (a) 25°

   (b) 65°

   (c) 90°

   (d) 115°



9. Two concentric circles are of radii 5 cm and 3 cm.Find the length of the cord of the larger circle which touches the smaller circle.