CIRCLE

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

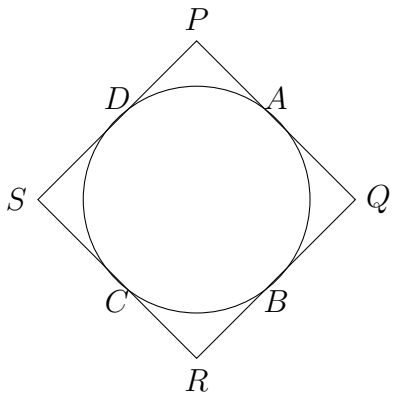

Figure 1

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 $\angle BAC = 65°$, then find the measure of $\angle BOC$.

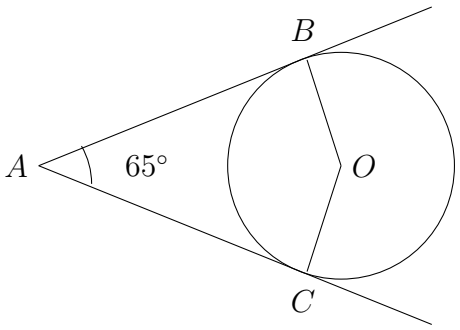

Figure 2

3. In the given figure,$\vec{O}$ is the centre of the circle and $\overrightarrow{QPR}$ is a tangent to it at P. Prove that $\angle QAP + \angle APR = 90°$.

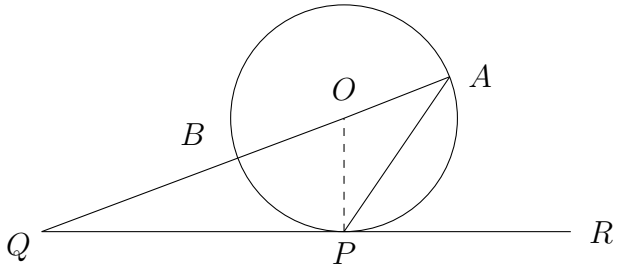

Figure 3

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

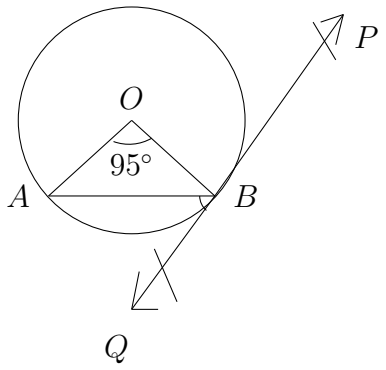

Figure 4

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 $\angle PTQ = 2\angle OPQ$.

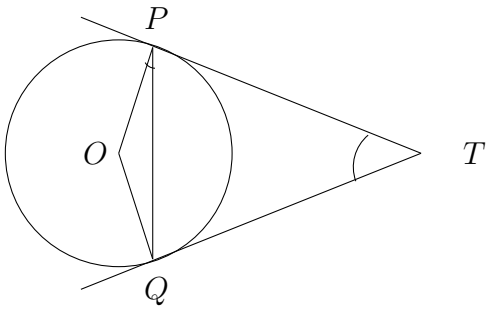

Figure 5

OR

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

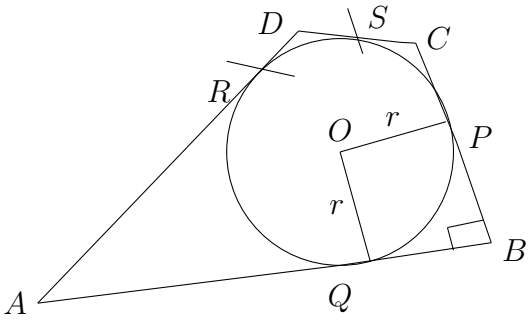

Figure 6

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.

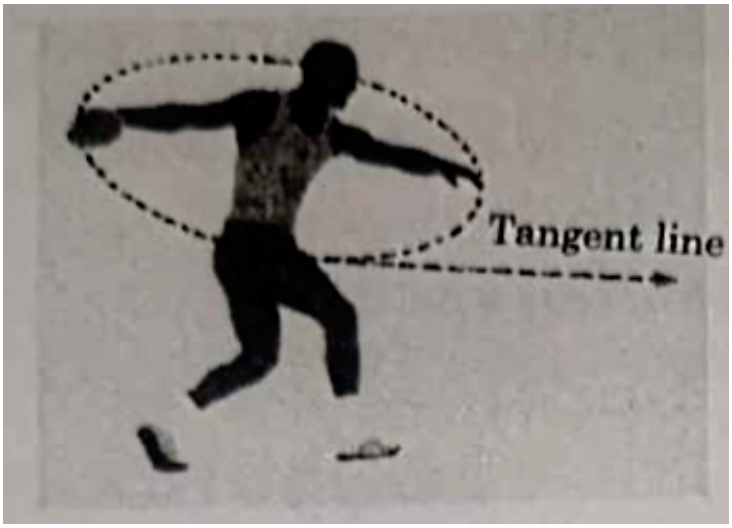

Figure 7

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

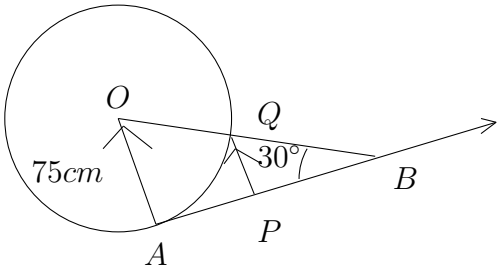

Figure 8

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

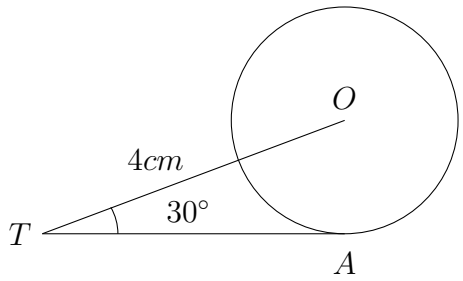

Figure 9

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) $115°$

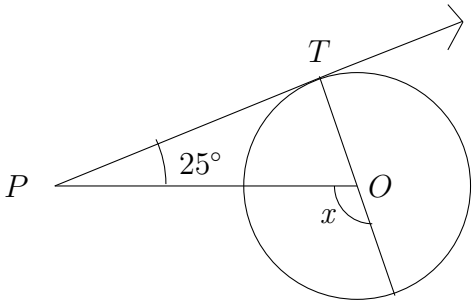

Figure 10

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.