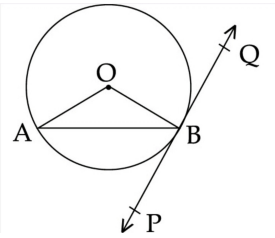
1. In the given figure, PQ is tangent to the circle centred at $\vec{O}$.If $\angle$AOB=95°, then the measure of $\angle$ABQ will be



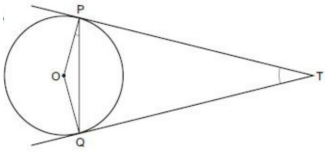
(a) 47.5°

(b) 42.5°

(c) 85°

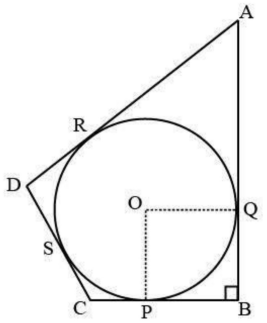
(d) 95°

2. (a) Two tangents TP and TQ are drawn to a circle with center $\vec{O}$ from an external point T. prove that $\angle$PTQ=2$\angle$OPQ

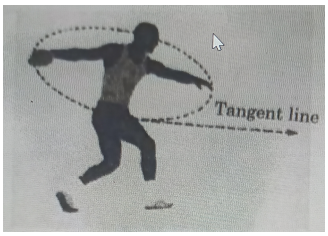


OR

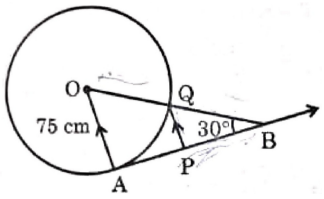
(b) In the given figure, a circle is inscribed in a quadrilaterals ABCD in which $\angle$B=90°. If AD=7 cm,AB=20 cm and DS=3 cm, then find the radius of the circle



3. The discus throw is an event in which an athlete attempts to throw a disus.the athlete spins anti-clockwise around one and a half times through a circle, then release 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 $\vec{O}$ is center of the circle and $\angle$ABO=30°. PQ is parallel to OA



Based on above informtion:

(a) find the length of AB.

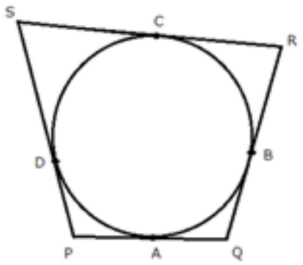
(b) find the length of OB.

(c) find the length of PQ.

OR

find the length of PQ.

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



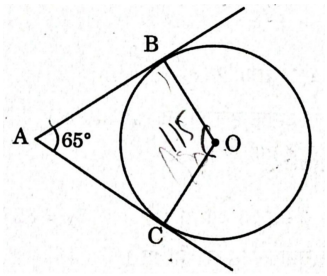
(a) QR

(b) PS

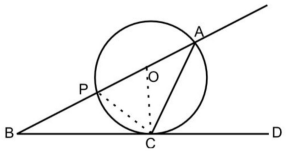
(c) PR

(d) PQ

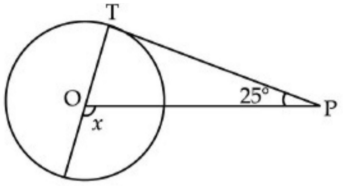
5. In the given figure, $\vec{O}$ is the center of the circle. AB and AC are tangents drawn to the circle from point A.If $\angle BAC=65^{\circ}$, then find the measure of $\angle BOC$.



6. In the given figure, $\vec{O}$ is the center of the circle and QPR is a tangent to it at P. prove that $\angle QAP+\angle APR=90^{\circ}$



7. In the givien figure, PT is a tangent at T to the circle with center $\vec{O}$.If $\angle TPO=25^{\circ}$, then x is equal to:



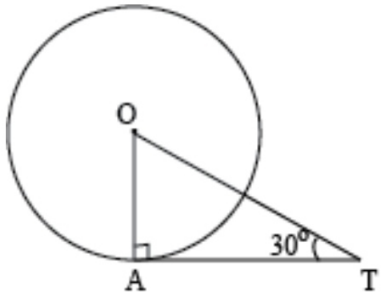
(a) 25°

(b) 65°

(c) 90°

(d) 115°

8. In the given, TA is a tangent to the circle with center $\vec{O}$ such that OT=4cm, $\angle OTA=30^{\circ}$, then length of TA is:



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

(b) 2cm

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

(d) $\sqrt{3}$cm

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