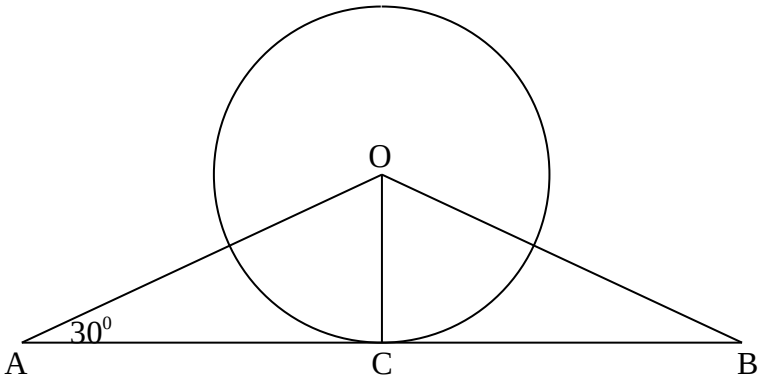
# Angles in a Circle

1. Triangle AOB is isosceles.
AB is a tangent to the circle.
Angle CAO is $30^0$.

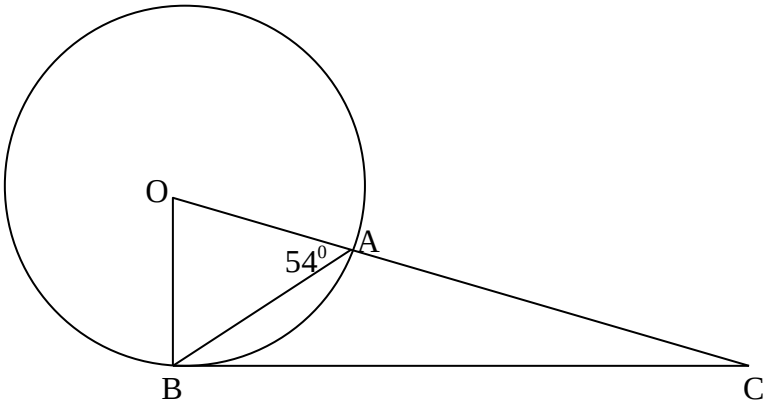
Calculate the size of angle BOC.




2. In the triangle opposite

OB is a radius of the circle
BC is a tangent to the circle
Angle OAB = $54^0$.

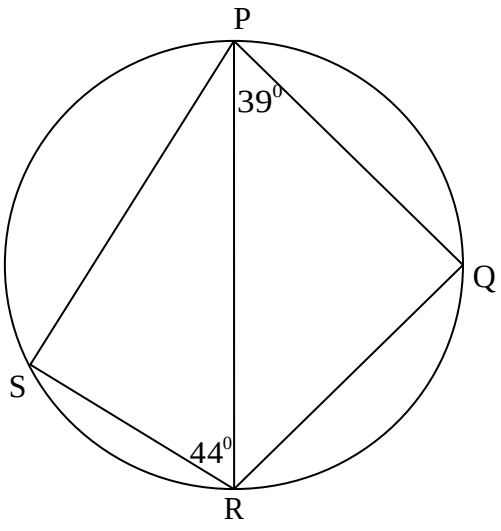
Calculate angle BCA.




3. PR is a diameter of the circle.

Angle PRS is $44^0$
Angle QPR is $39^0$.

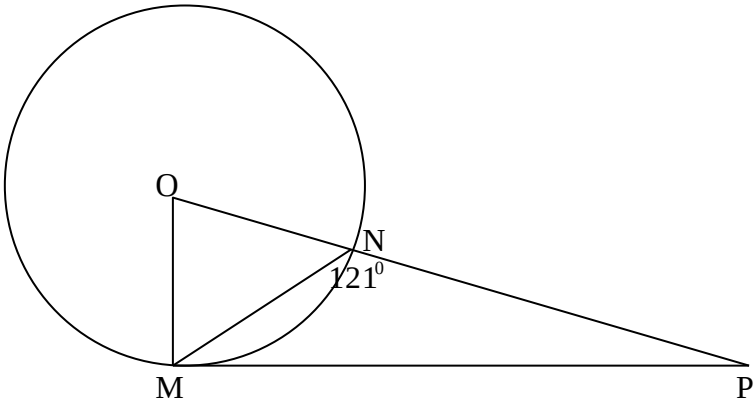
Calculate the size of angle SRQ.



4. In the diagram

OM is a radius of the circle
MP is a tangent to the circle
Angle MNP = $121^0$

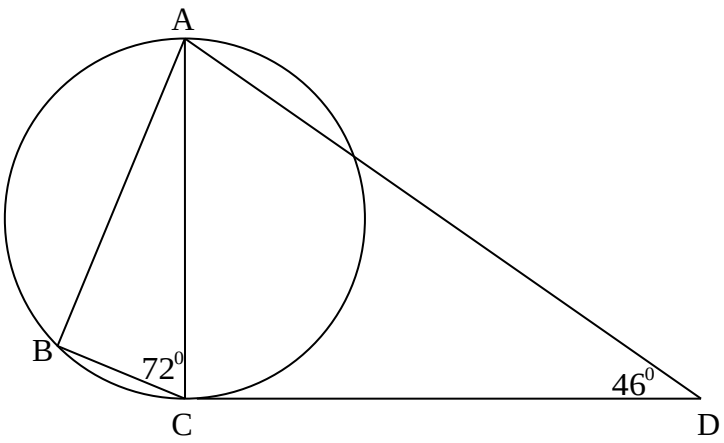
Calculate angle MPN.




5. AC is a diameter of the circle.
CD is a tangent to the circle.

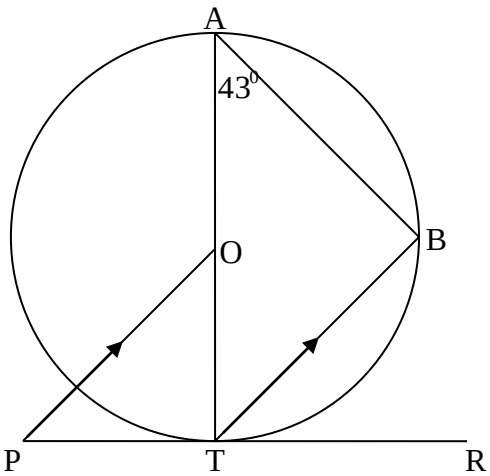
Angle ACB = $72^0$.
Angle CDA = $46^0$.

Calculate the size of angle DAB.



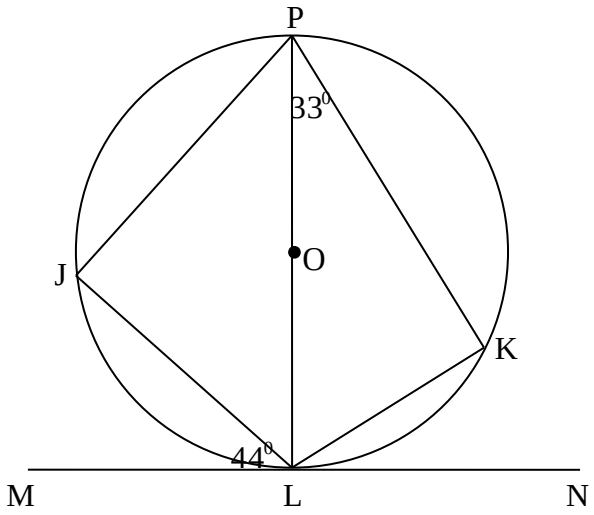

6. PTR is a tangent to the circle, centre O.
Angle BAT = $43^0$.
PO is parallel to TB.

Calculate the size of angle OPT.



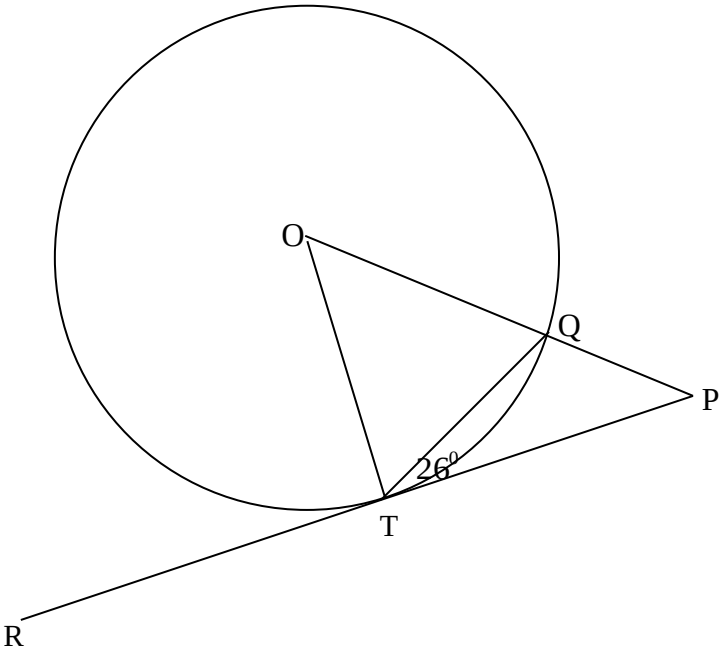
7. MLN is a tangent to the circle, centre O.
Angle JLM is $44^0$.
Angle KPL is $33^0$.

Find the size of angle KLJ.



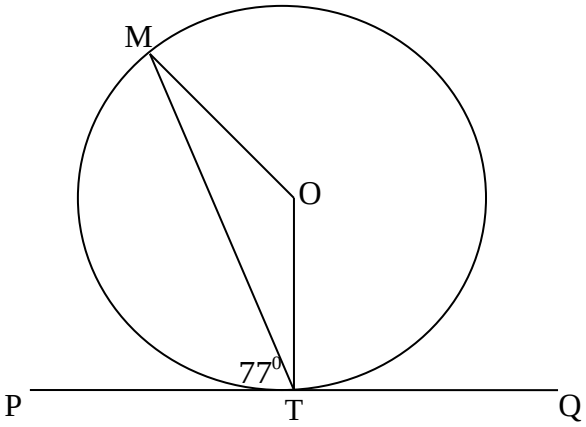

8. RP is a tangent to the circle, centre O.
Angle QTP is $26^0$.

Calculate the size of angle OPT.




9. PTQ is a tangent to the circle, centre O.
Angle MTP = $77^0$.

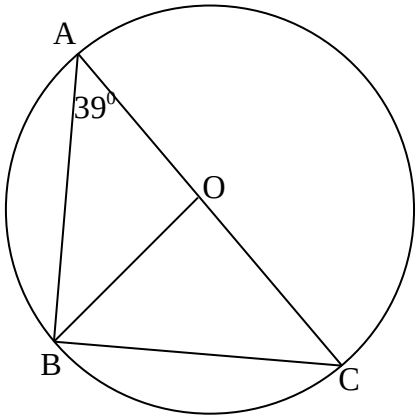
Calculate the size of angle MOT.



10. In the diagram O is the centre of the circle.

AC is a diameter.
B is a point on the circumference.
Angle BAC = $39^0$.

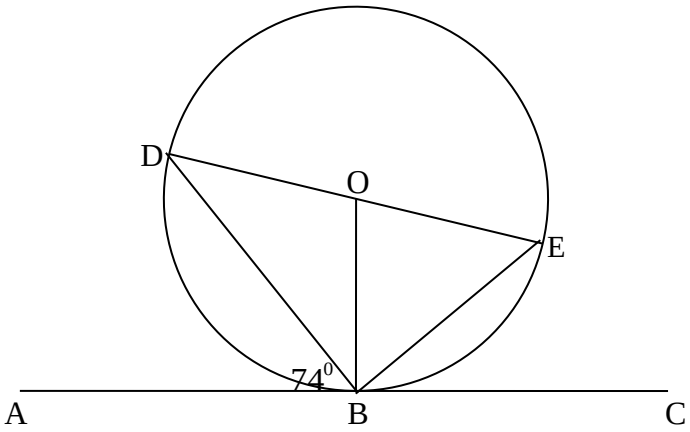
Calculate angle BOC.




11. The diagram shows a circle centre O.
AC is a tangent to the circle.

Angle DBA is $74^0$.

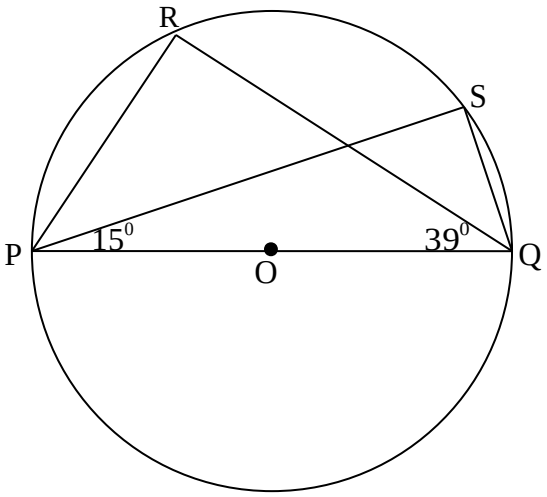
Calculate the size of angle BOE.




12. PQ is a diameter of the circle, centre O.
R and S are points on the circumference.

Angle SPQ is $15^0$.
Angle RQP is $39^0$.

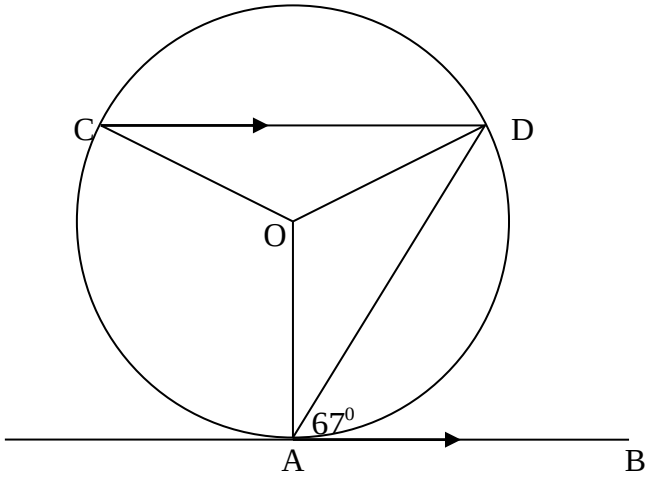
Calculate the size of angle RPS.



13. AB is a tangent to the circle, centre O.
CD is parallel to AB.

Angle DAB = $67^0$.

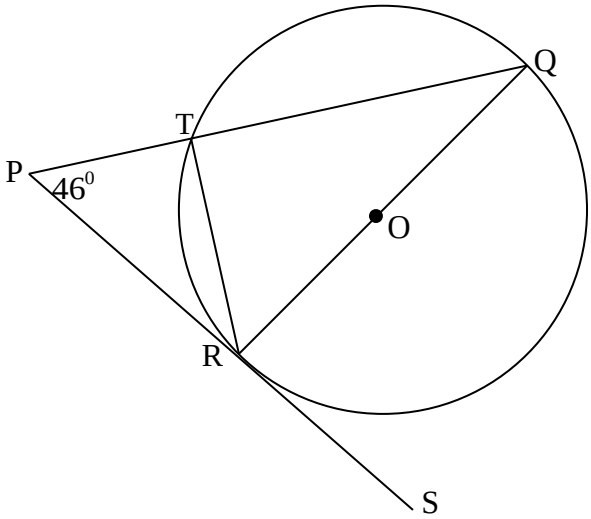
Calculate the size of angle CDO.




14. A circle, centre O, is shown.

QR is a diameter.
PS is a tangent to the circle.
Angle RPT = $46^0$.

Calculate the size of angle TRS.




15. AB is the diameter of a circle, centre O.
OC intersects the circle at D.

Angle CBO = $32^0$.
Angle DAB = $66^0$.

Calculate the size of
angle BCO.