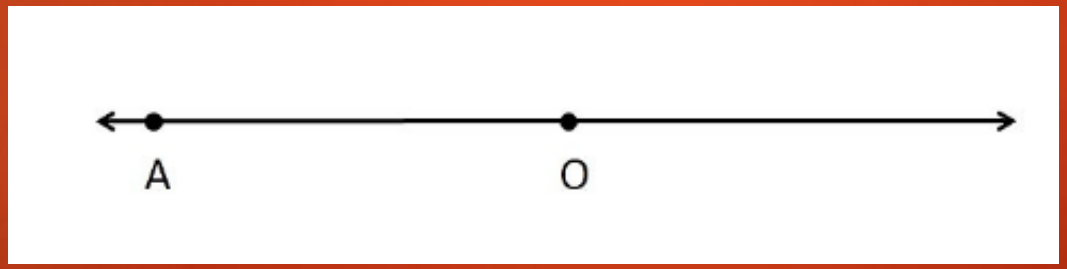
CLASS-6
MODULE-5/8
PRACTICAL GEOMETRY

ANGLES

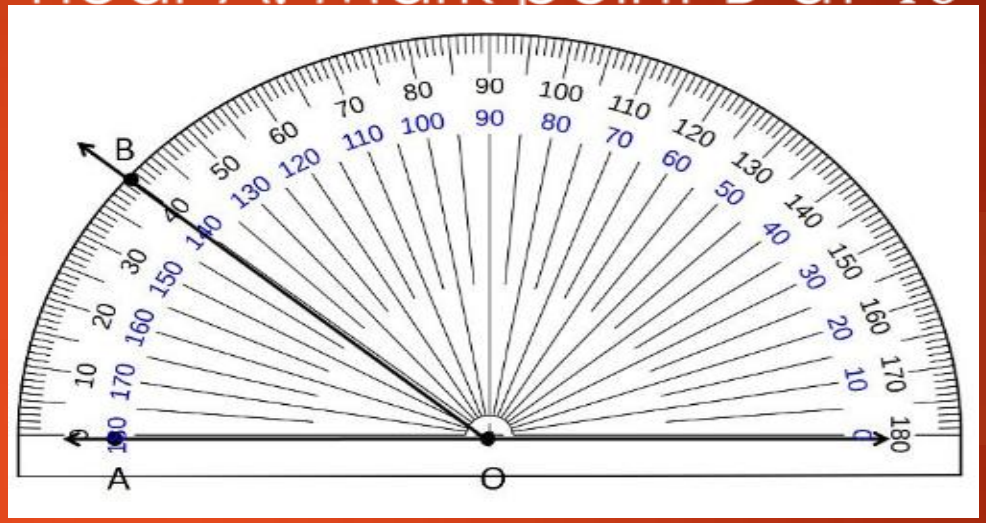
- CONSTRUCTING AN ANGLE OF A GIVEN MEASURE

  Let us construct an angle of measure 40^0.

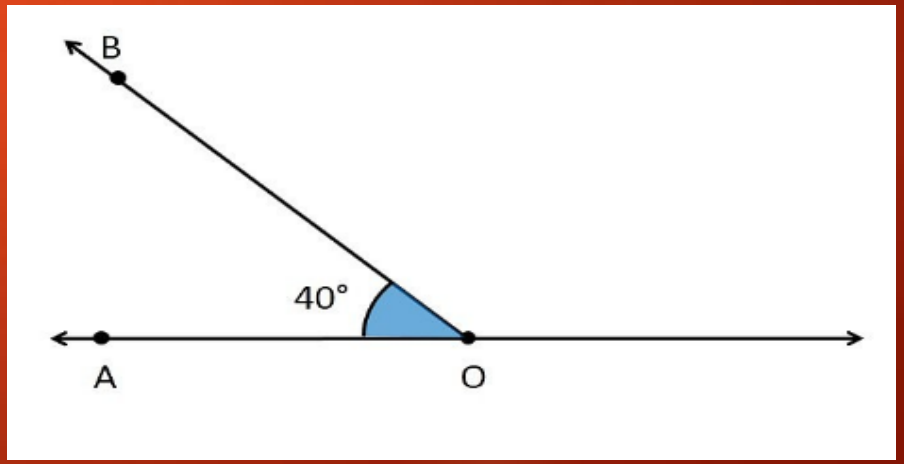
- Steps of construction :
- Draw AB of any length.



- Place the centre of the protractor at O and zero edge along protractor. Start with zero near A. Mark point B at 40^0.

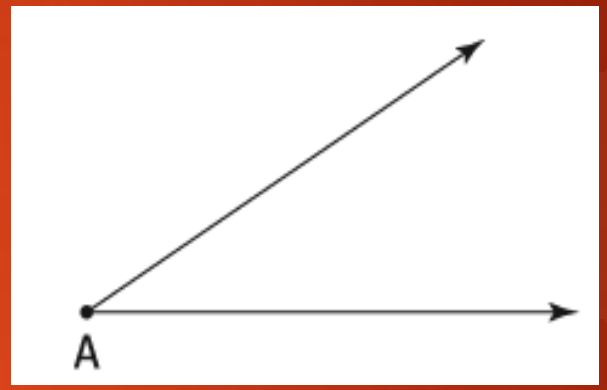


- Join OB. ∠AOB is the required angle.



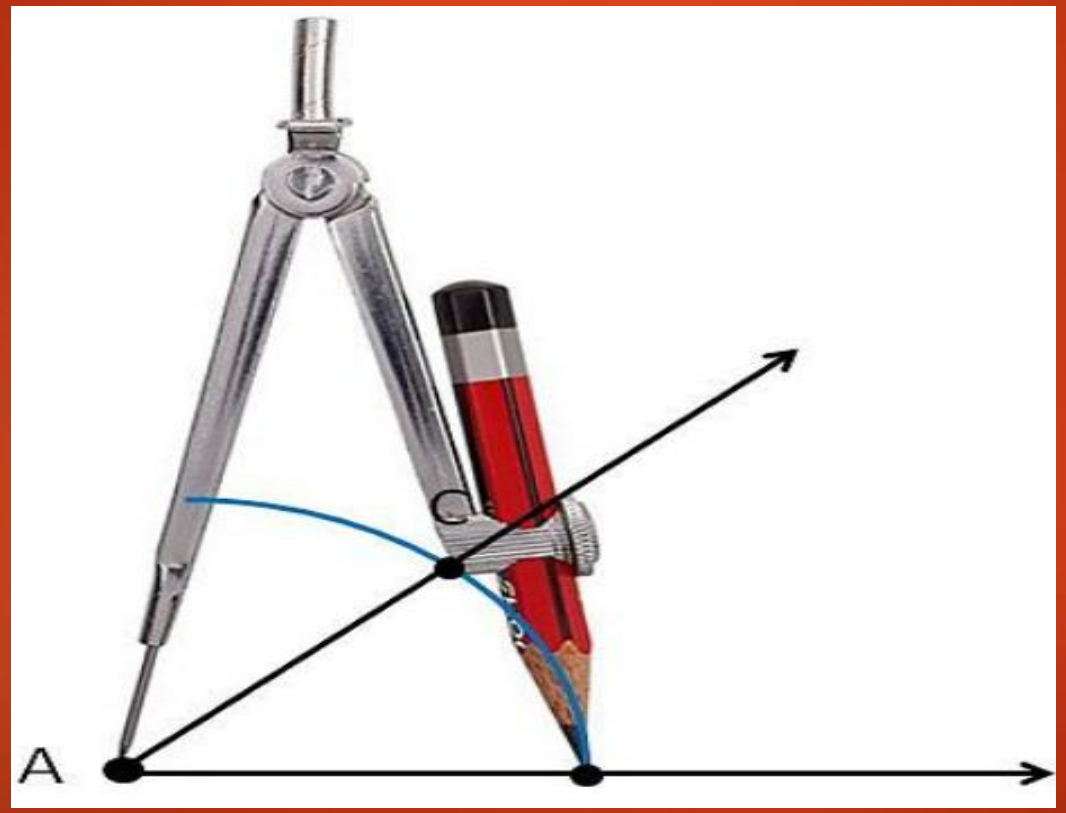
Constructing a copy of an angle of Unknown measure.

- Given ∠A, whose measure is not known.

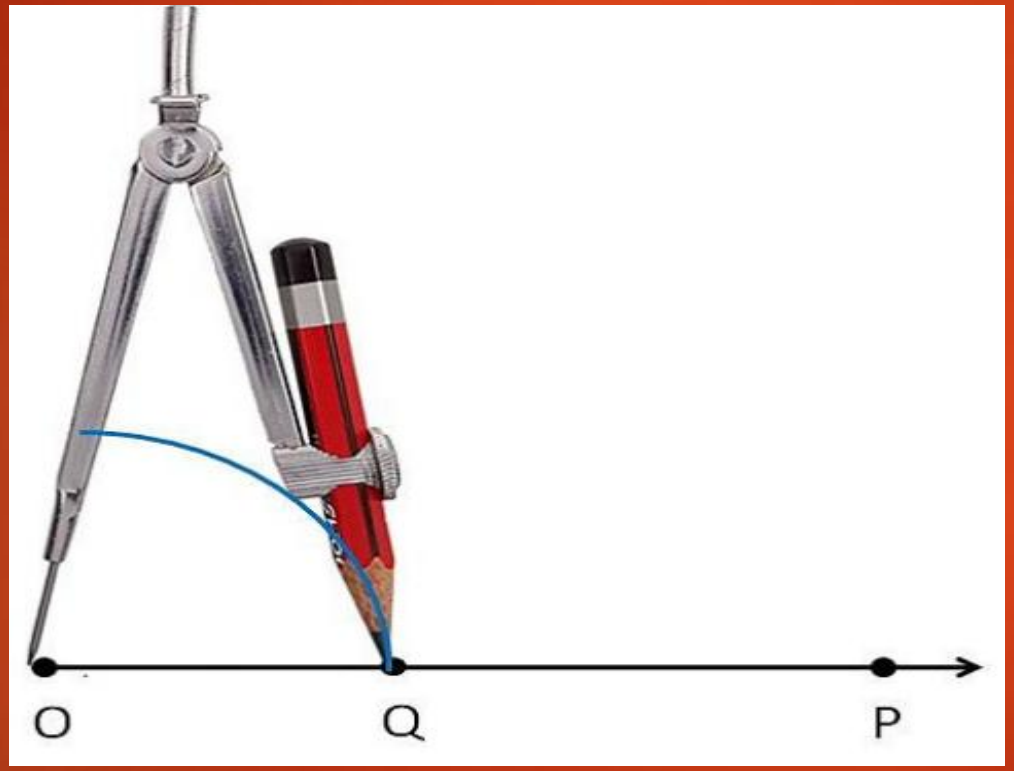


- Draw a line l and choose a point P on it.

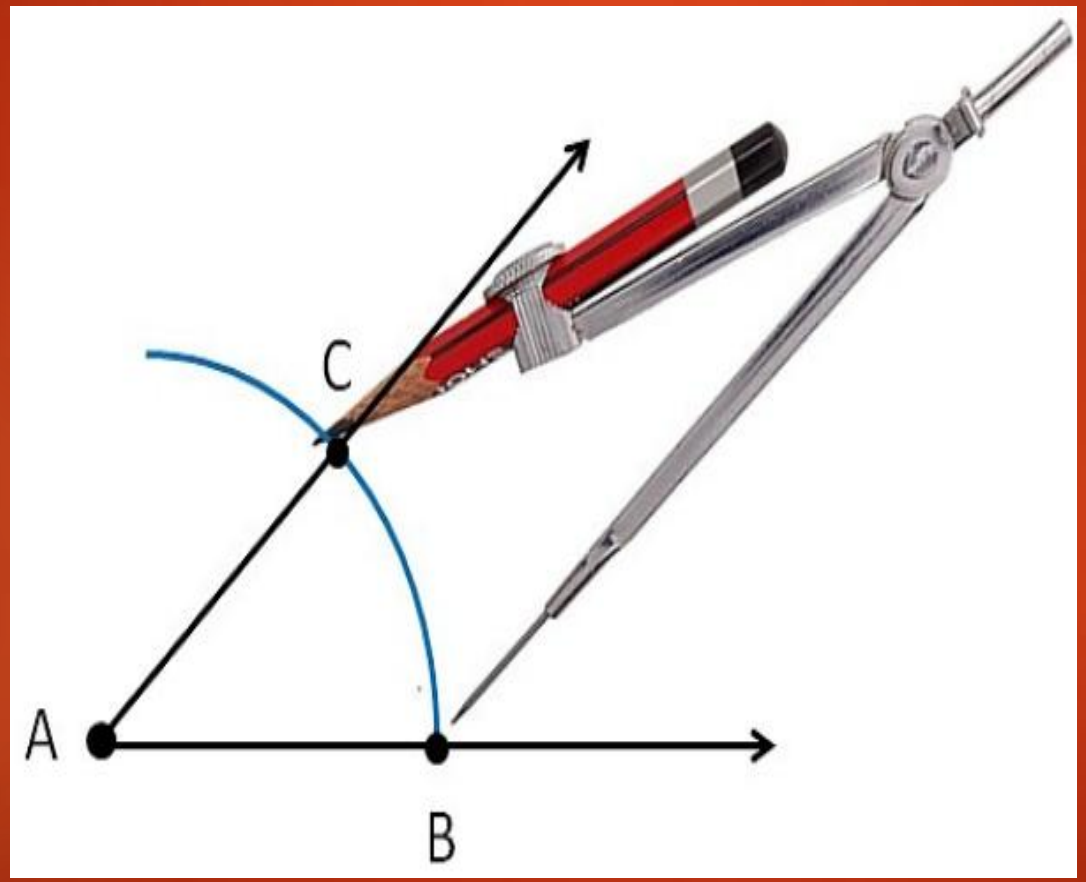
- Place the compasses at A draw an arc to cut the rays of ∠ A at B and C



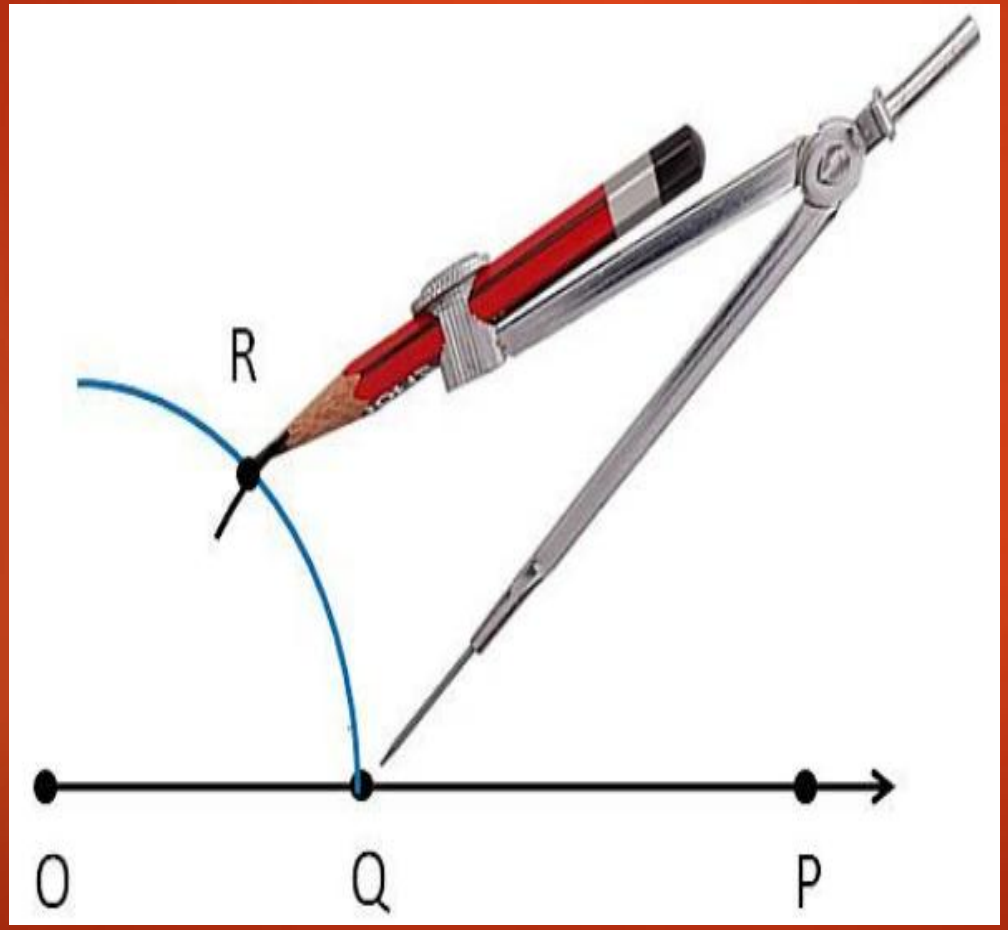
- Use the same compasses setting to draw an arc with O as centre, cutting l in Q



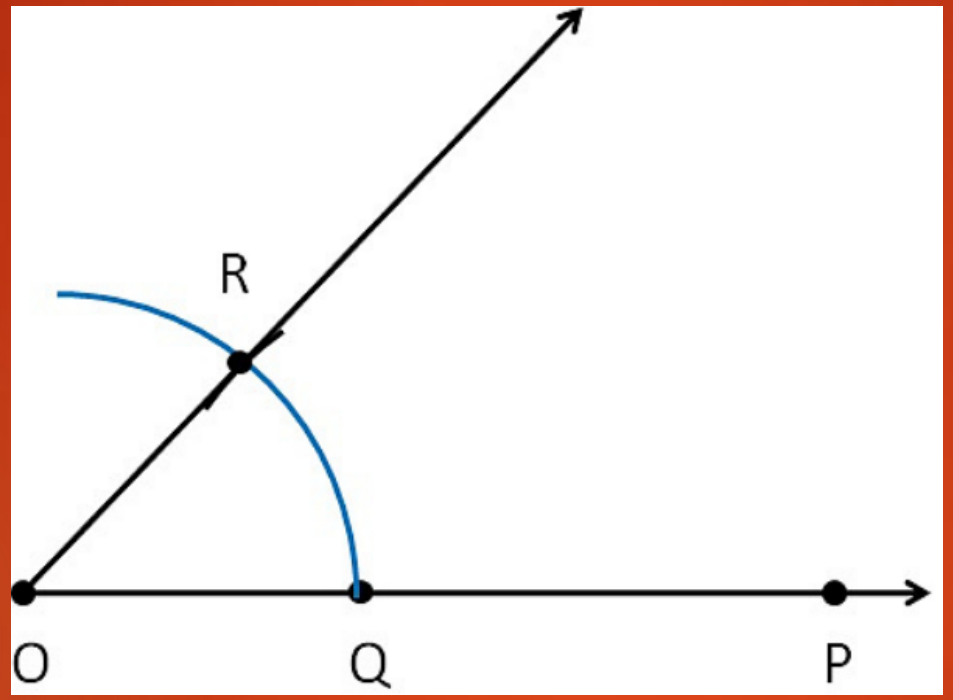
- Set your compasses to the length BC with the same radius.



- Place the compasses pointer at Q and draw the arc to cut the arc drawn earlier in R.



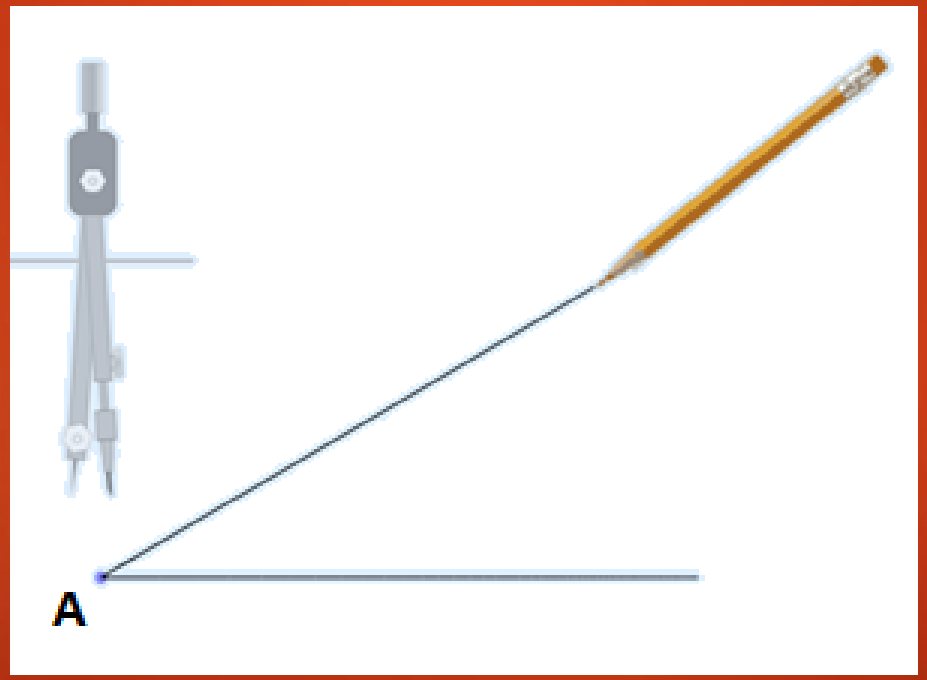
- Join PR.
- This gives us ∠ P. it has same measure as ∠ A



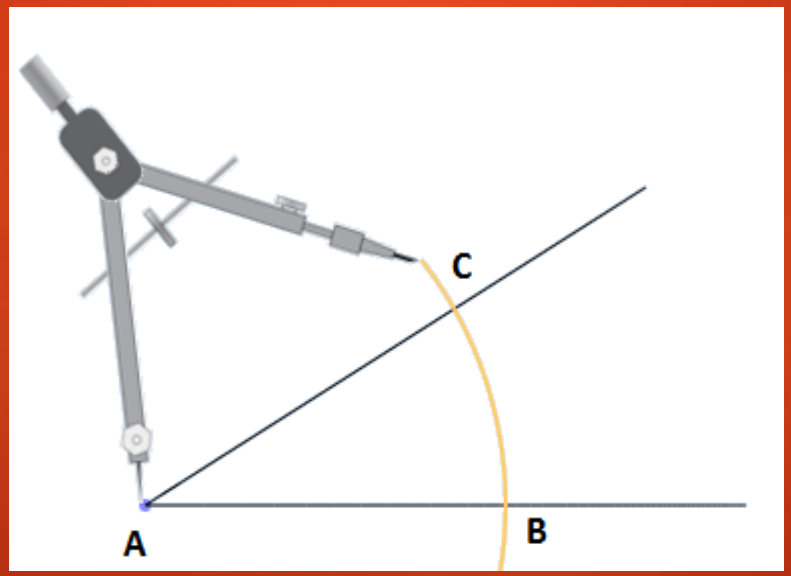
- This means ∠ QPR has same measure as ∠ BAC

Bisector of an angle

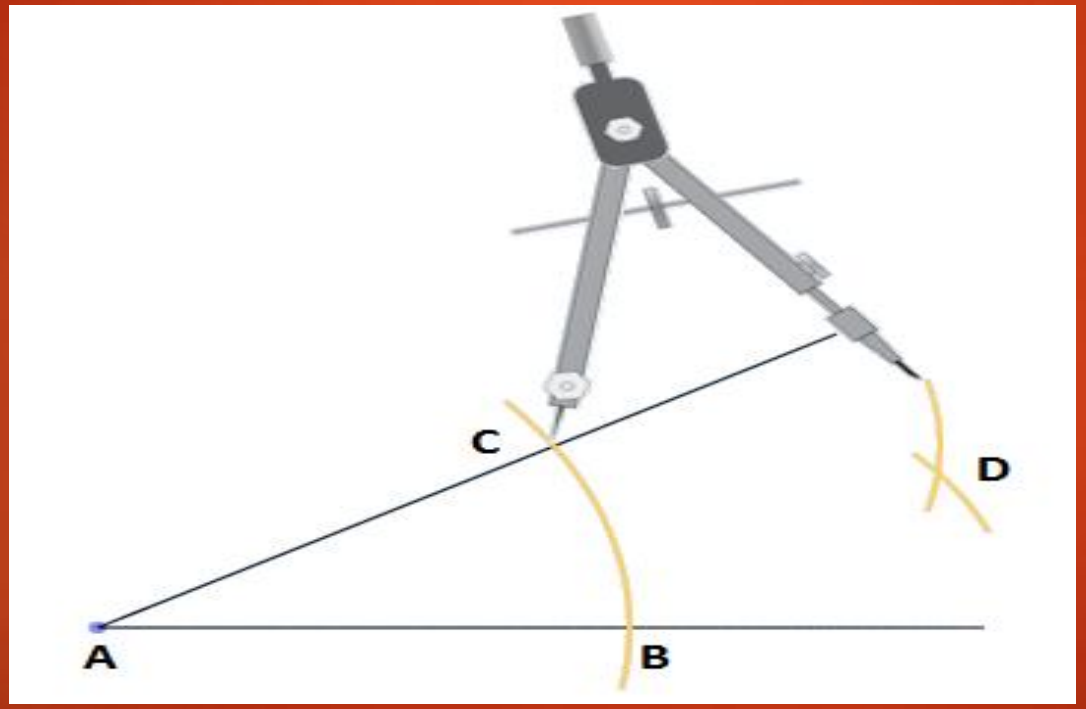
- Let an angle, say, ∠ A is given.



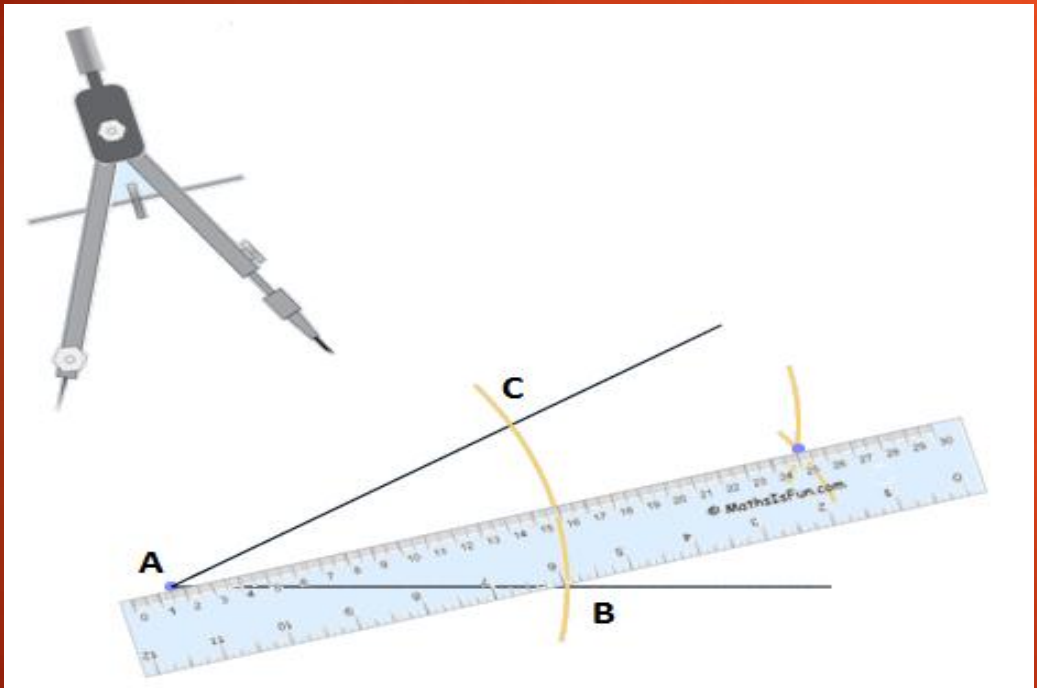
- With A as centre and using compasses, draw an arc that cuts both rays of ∠A.
- Label the points of intersection as B and C.

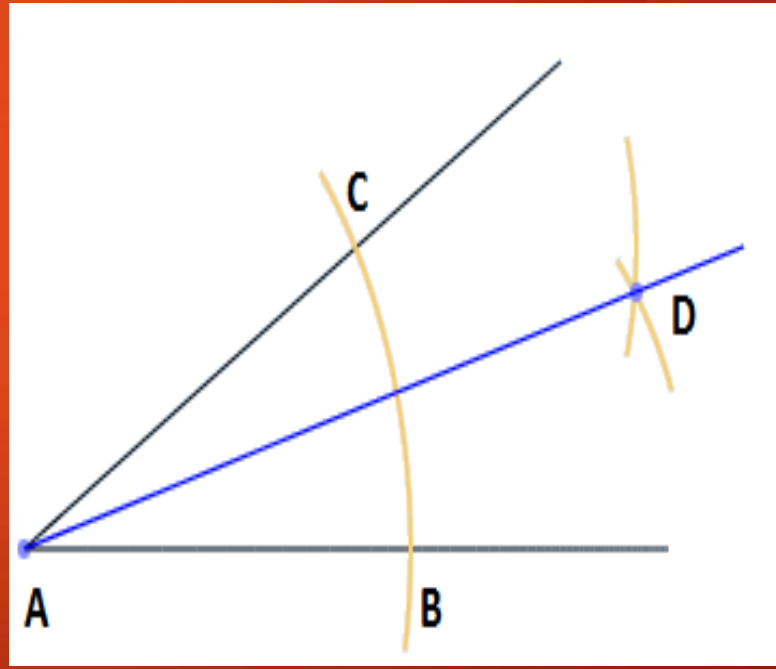


- With B as centre draw (in the interior of angle ∠A) an arc whose radius is more than half the length of BC.



- With the same radius and with C as centre draw another arc in the in the interior of ∠A. let the two arcs intersect at D. then AD is the required bisector of ∠A





THANK YOU

- V V DURGA BHAVANI
- TGT (MATH/PHY)
- AECS-2, TARAPUR.