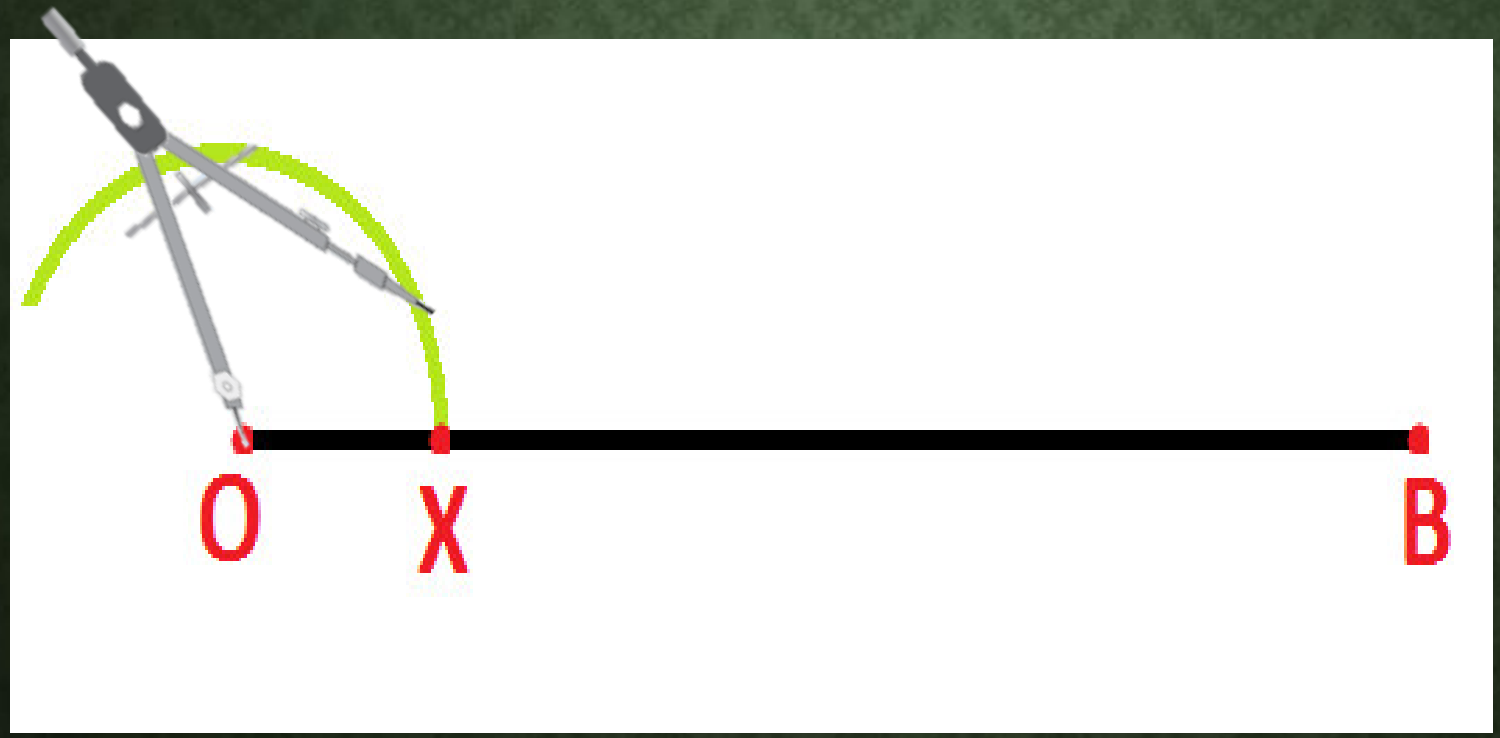
CLASS-6
MODULE-7/8

PRACTICAL GEOMETRY

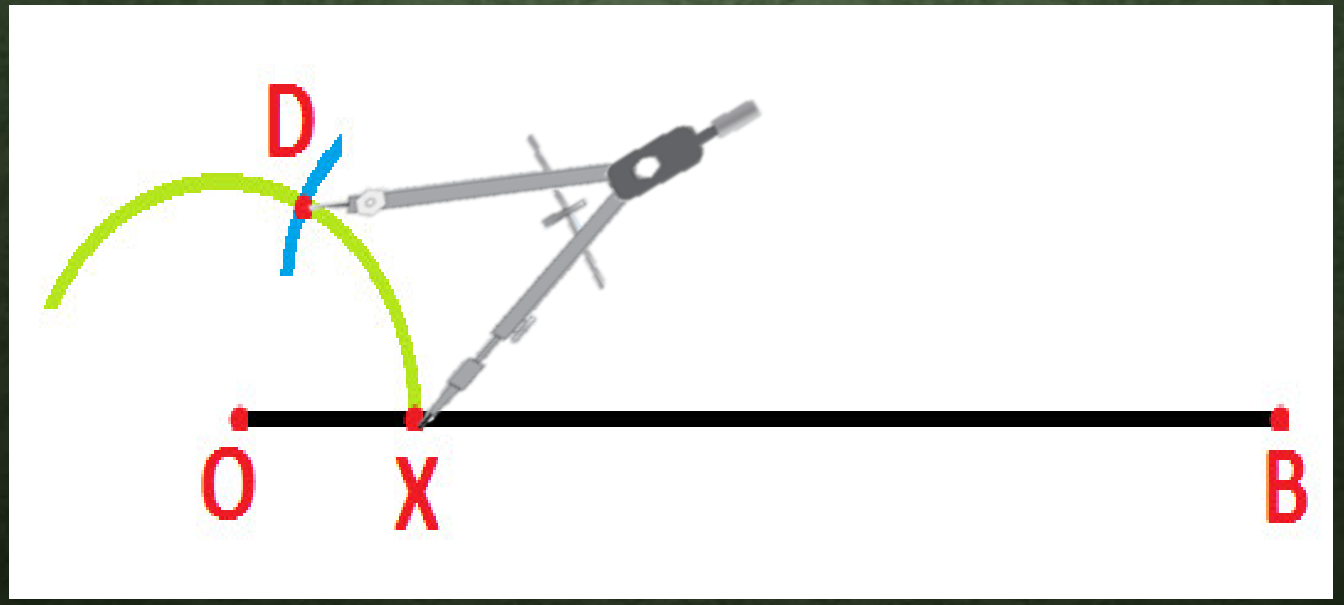
CONSTRUCTING A 90^0 ANGLE

- Use ruler and draw a **Line segment OB** of any convenient length.

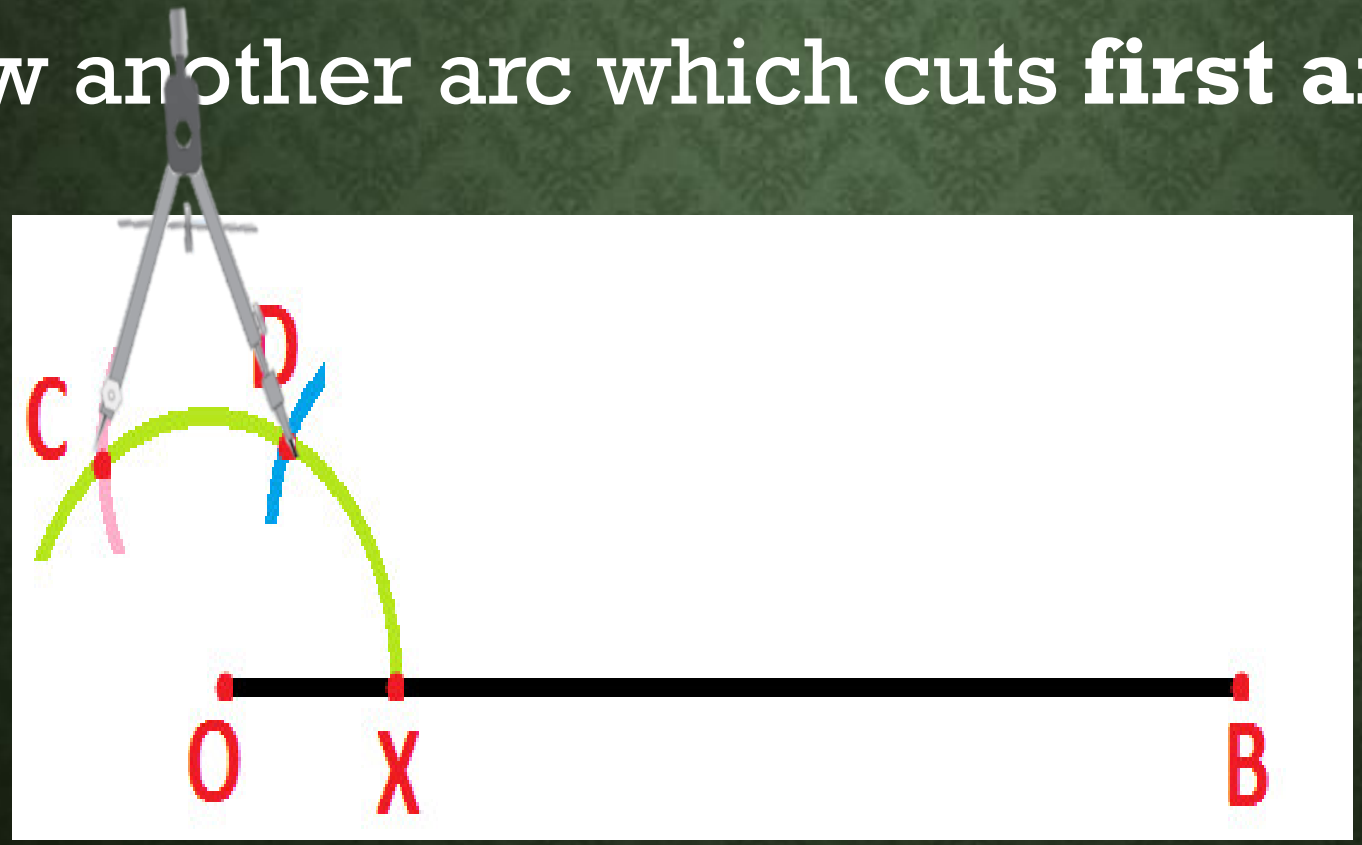
- Now use compass and open it to any convenient radius. And with **O as center** , draw an arc which cuts **line segment OB at X.**



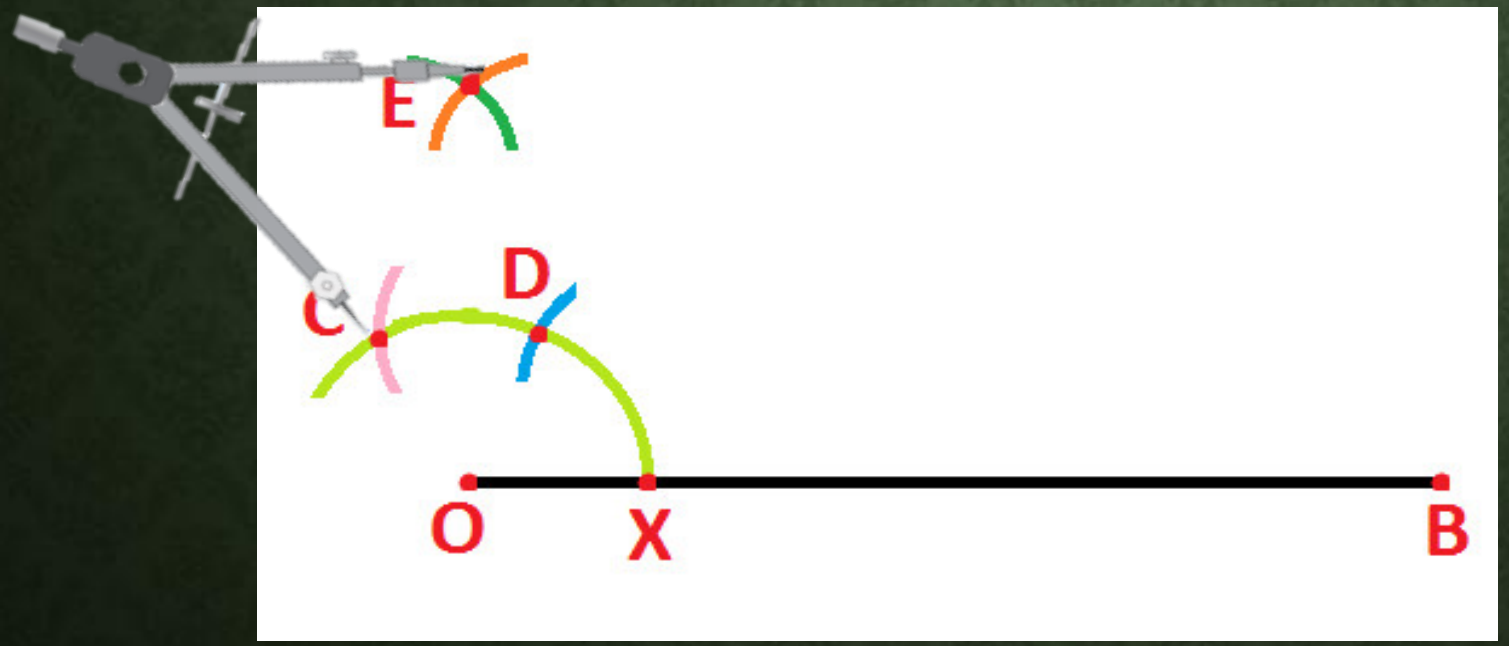
- Again use compass and opened to the same radius (as of step 2). And with **X as center** , draw an arc which cuts **first arc at D** .



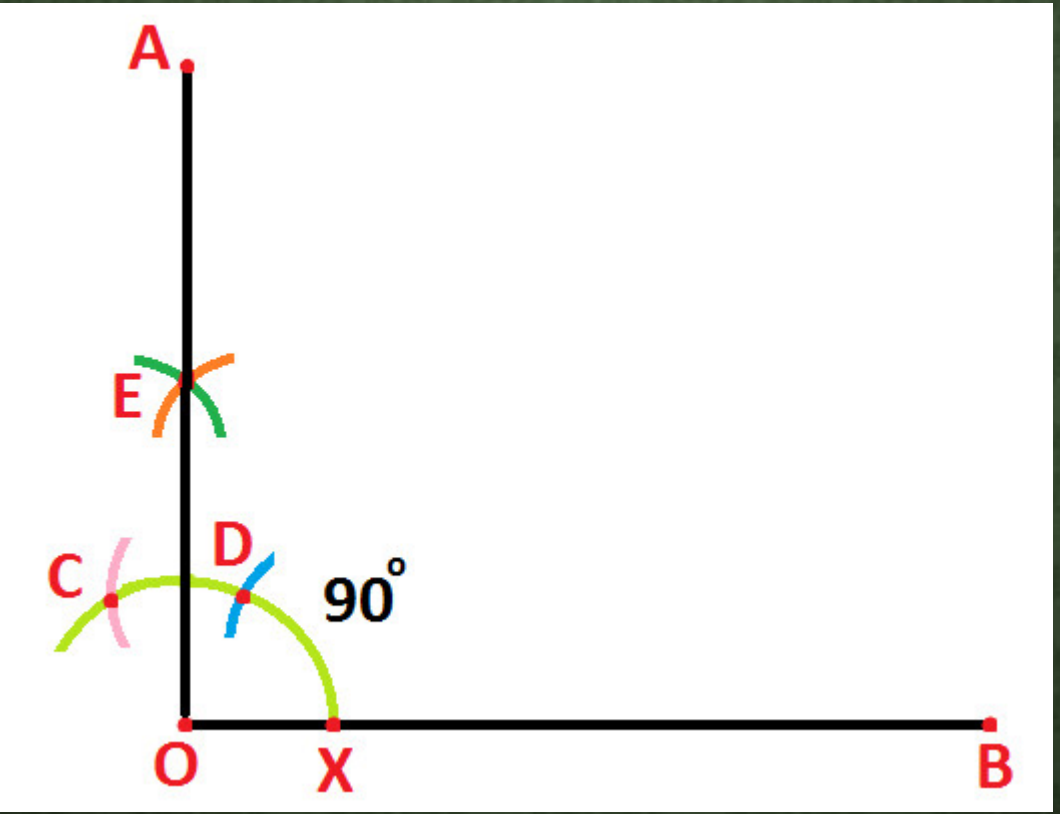
- Again use compass and opened to the same radius (as of step 2). And with **D as center** , draw another arc which cuts **first arc at C** .



- Again use compass and opened to the same radius (as of step 2). And With **C & D as center** , draw two arc which cuts each other at **E** .

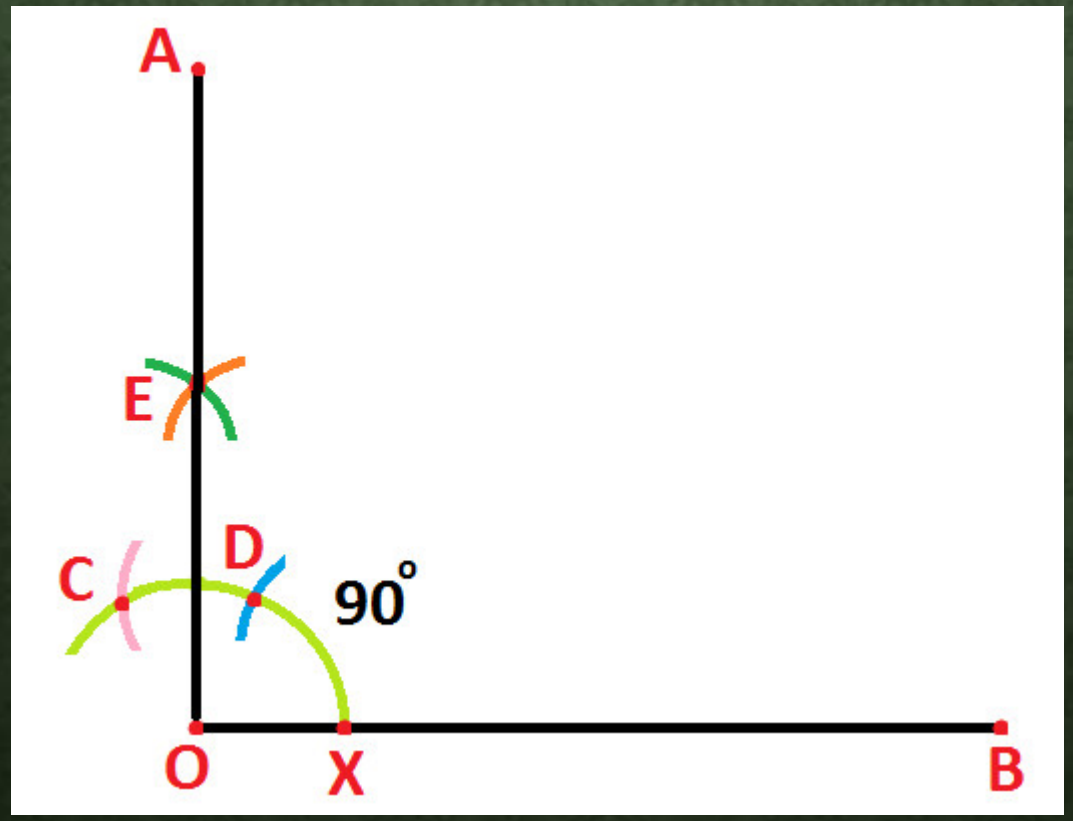


- Join **OE** and extent it to **A**. $\angle AOB$ is 90^0

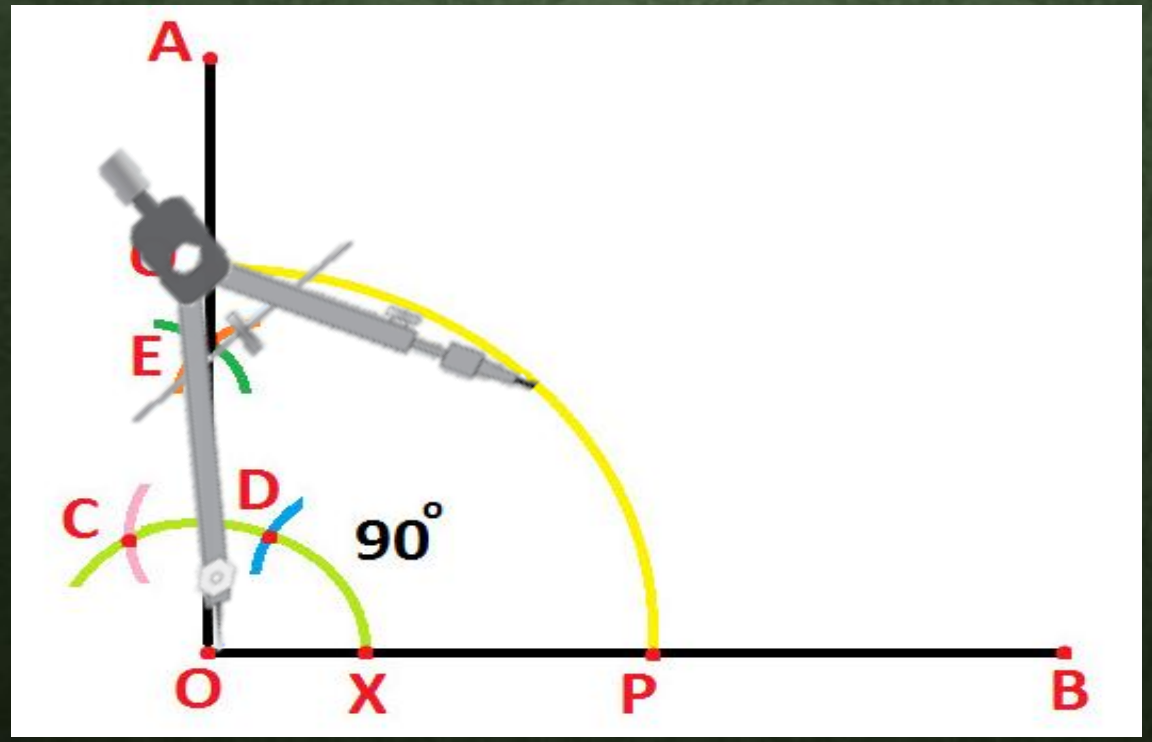


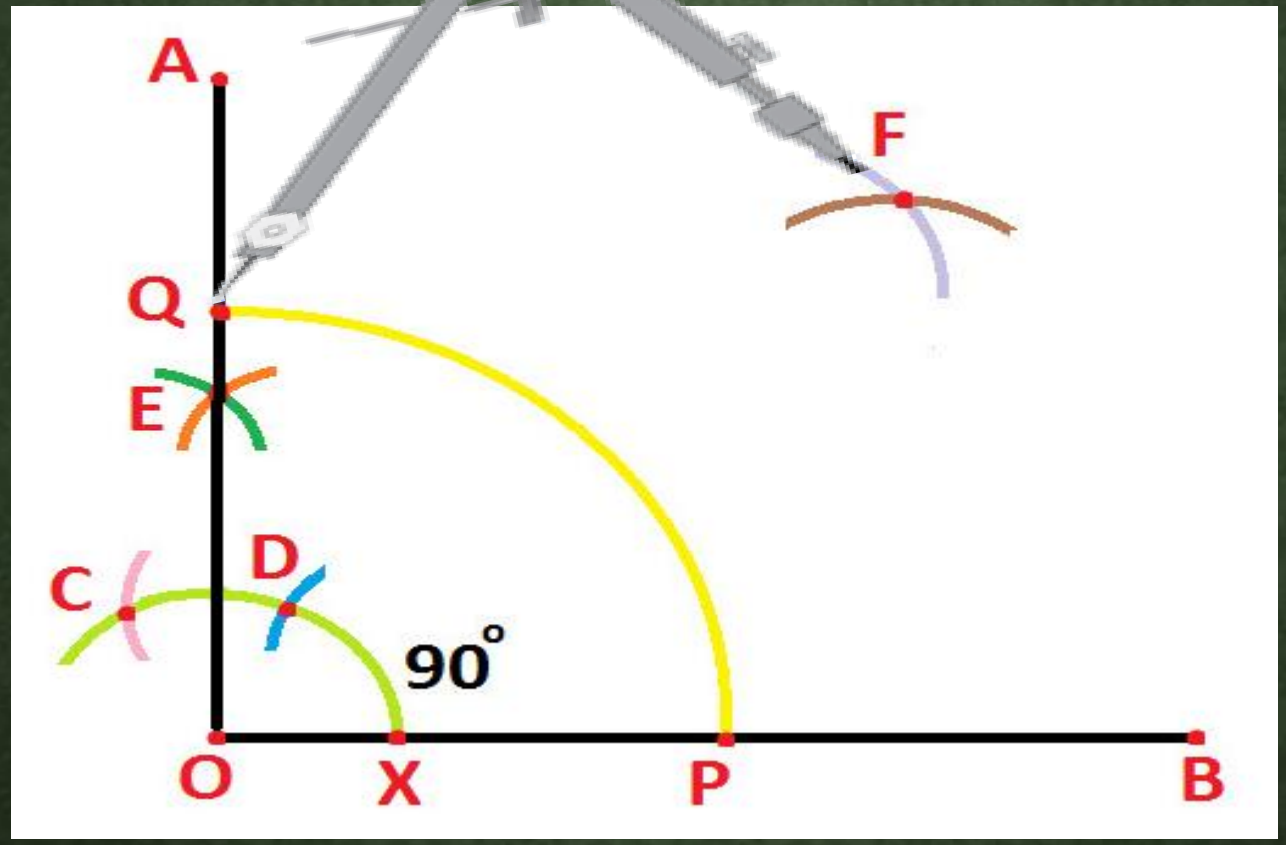
CONSTRUCTING A 45^0 ANGLE

- To construct 45^0 angle, first we draw 90^0 angle.



- **Now, to construct at 45^0 angle, we will construct the angle bisector of above $\angle$ AOB.**
- Use compass and open it to any convenient radius. And with **O as center** , draw an arc which cuts **line segment OB at P and OA at Q** .





- Again use compass and opened to with the same radius .And with **P & Q as center** and, draw two arcs which cuts each other at point F.
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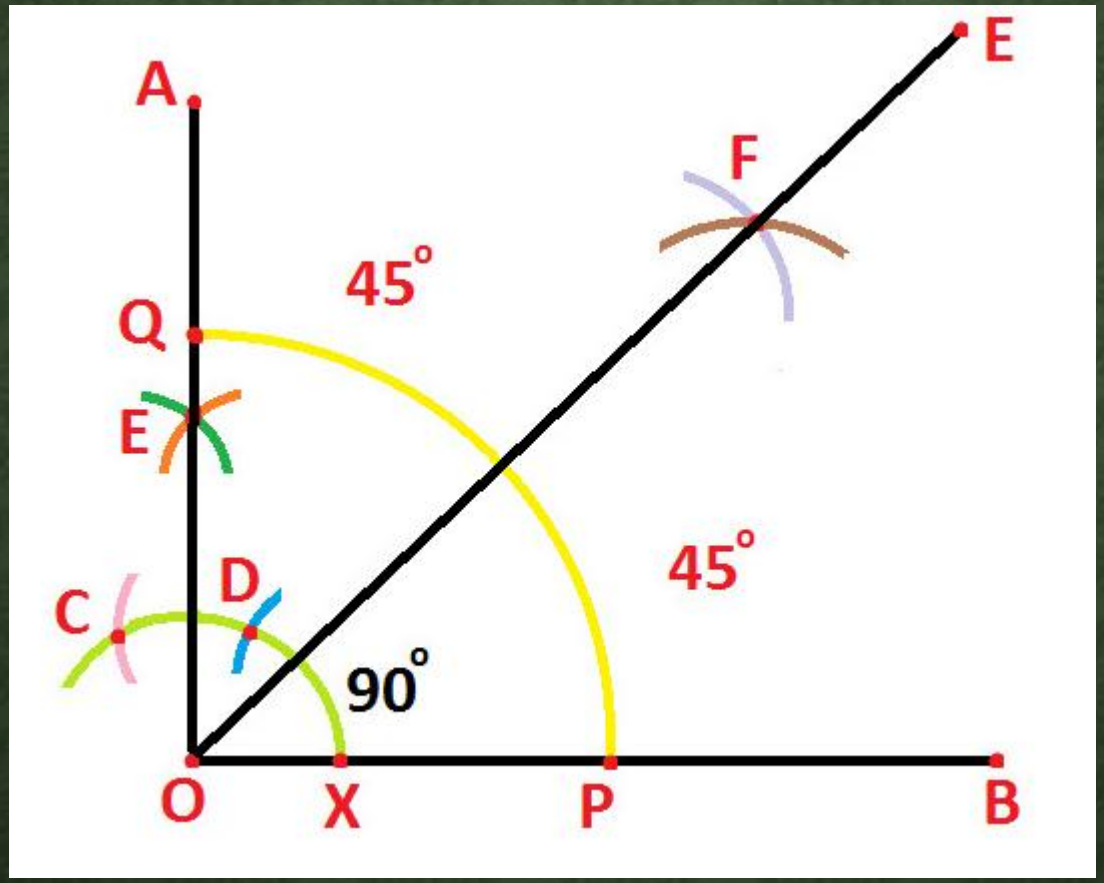
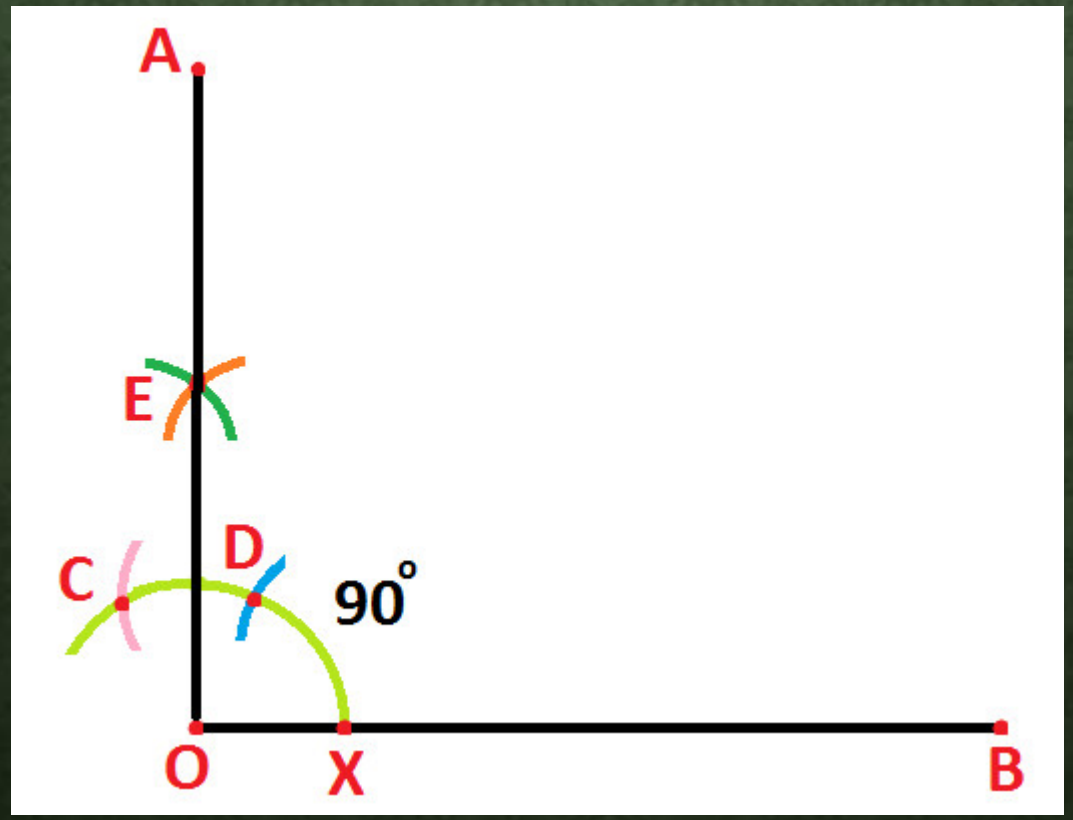
- Join OF. $\angle$ EOP = 45^0

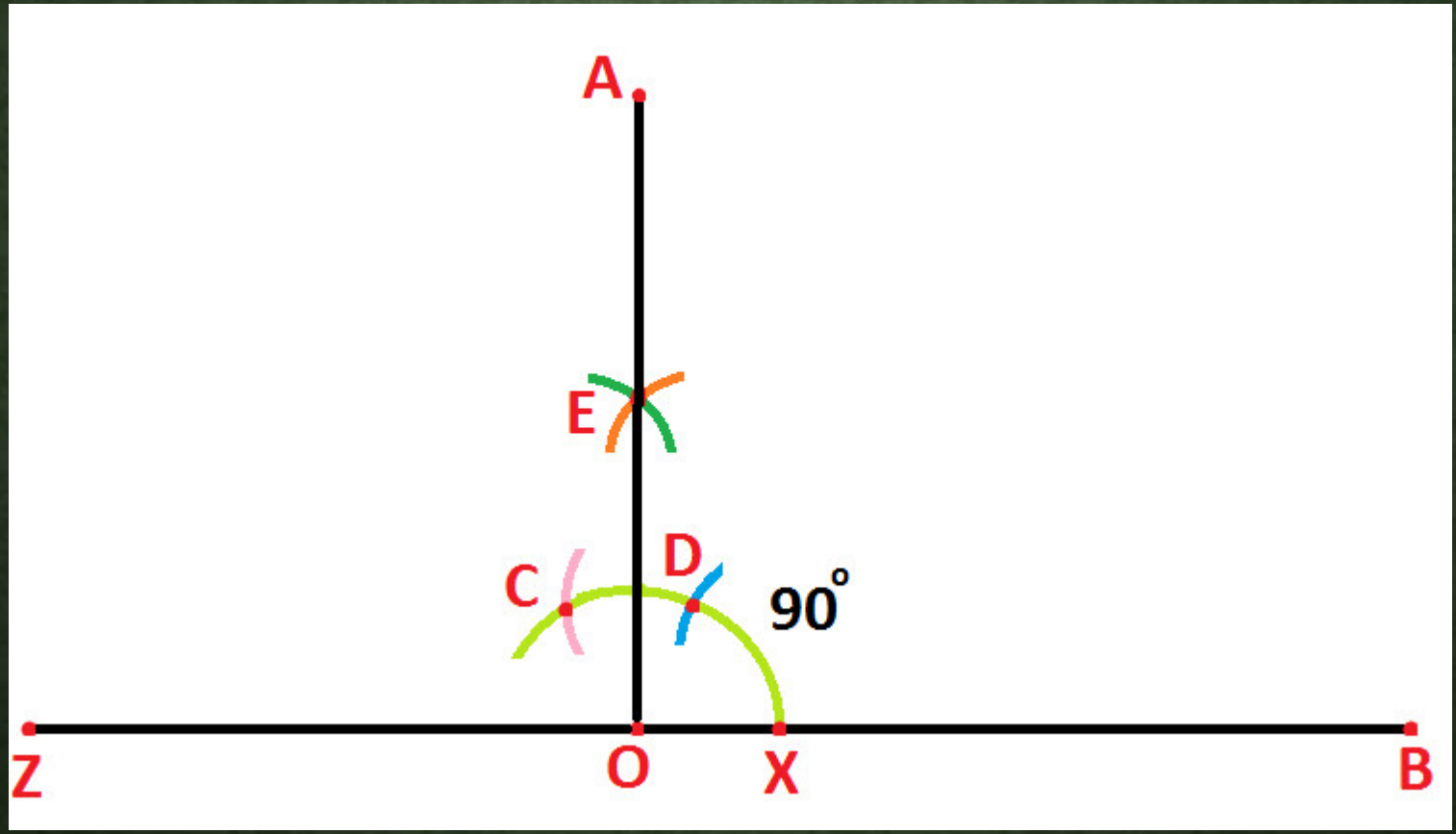


CONSTRUCTING A 135^0 ANGLE

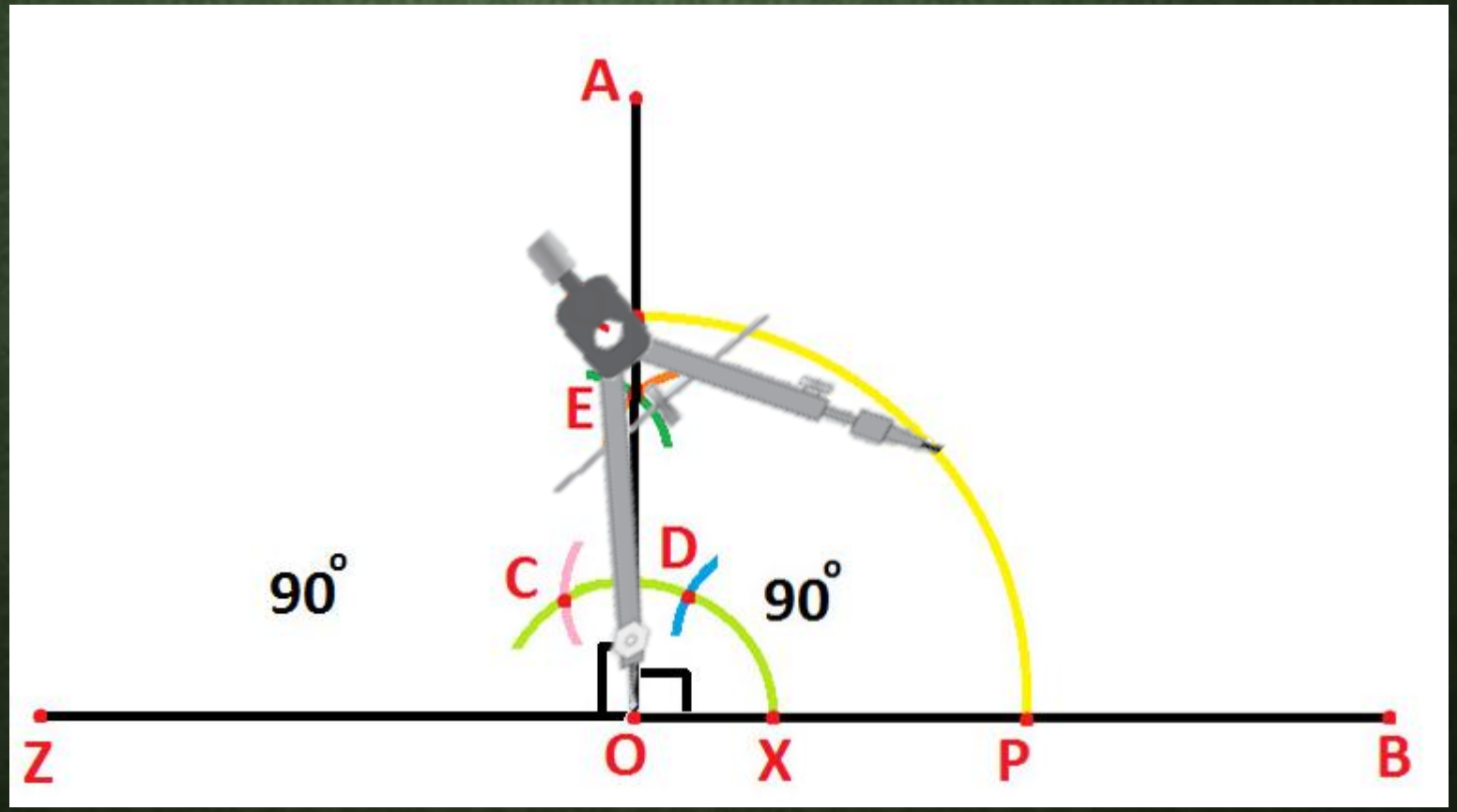
- To construct 135^0 angle we first construct 90^0 angle.



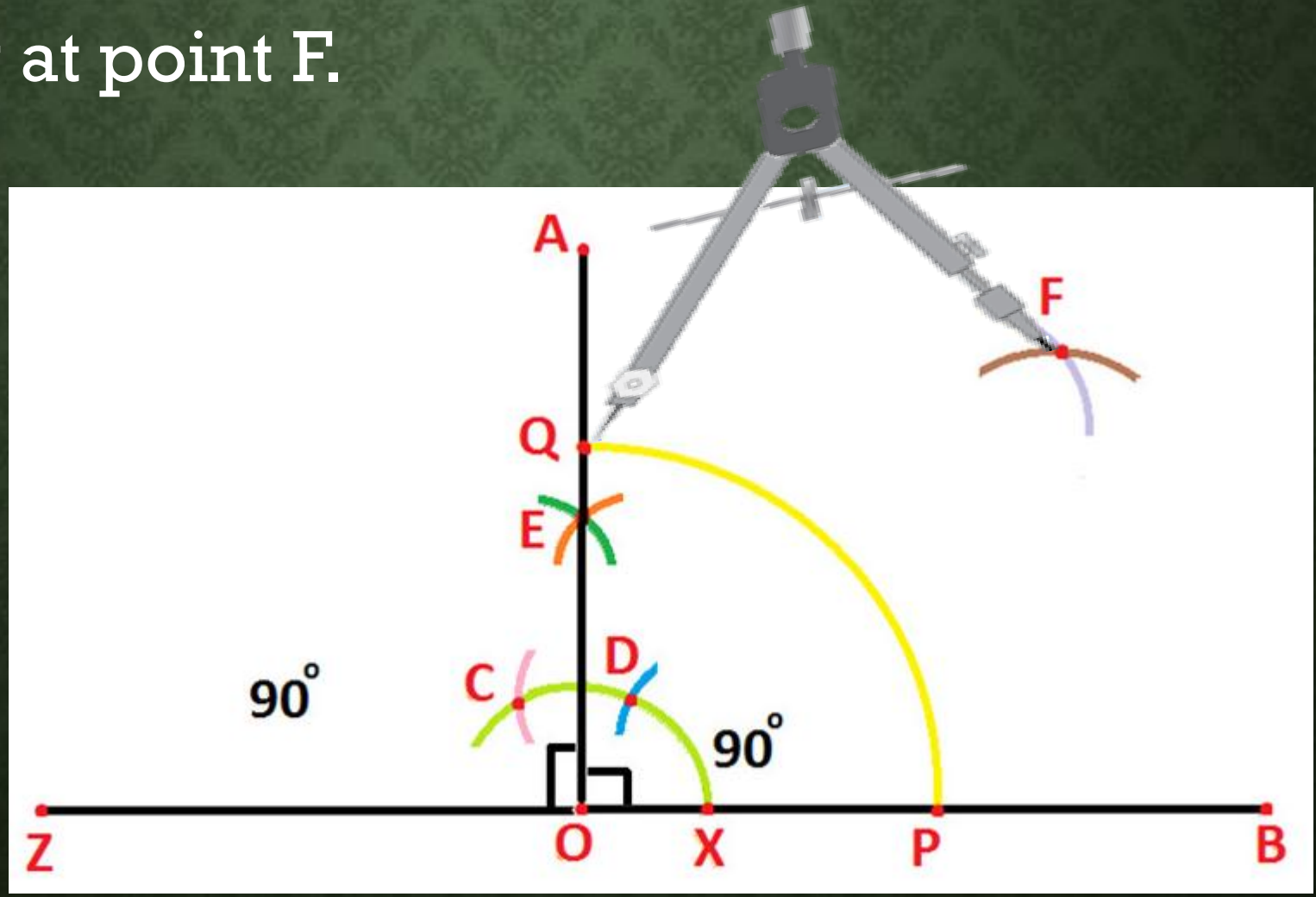
- Extend BO to Z



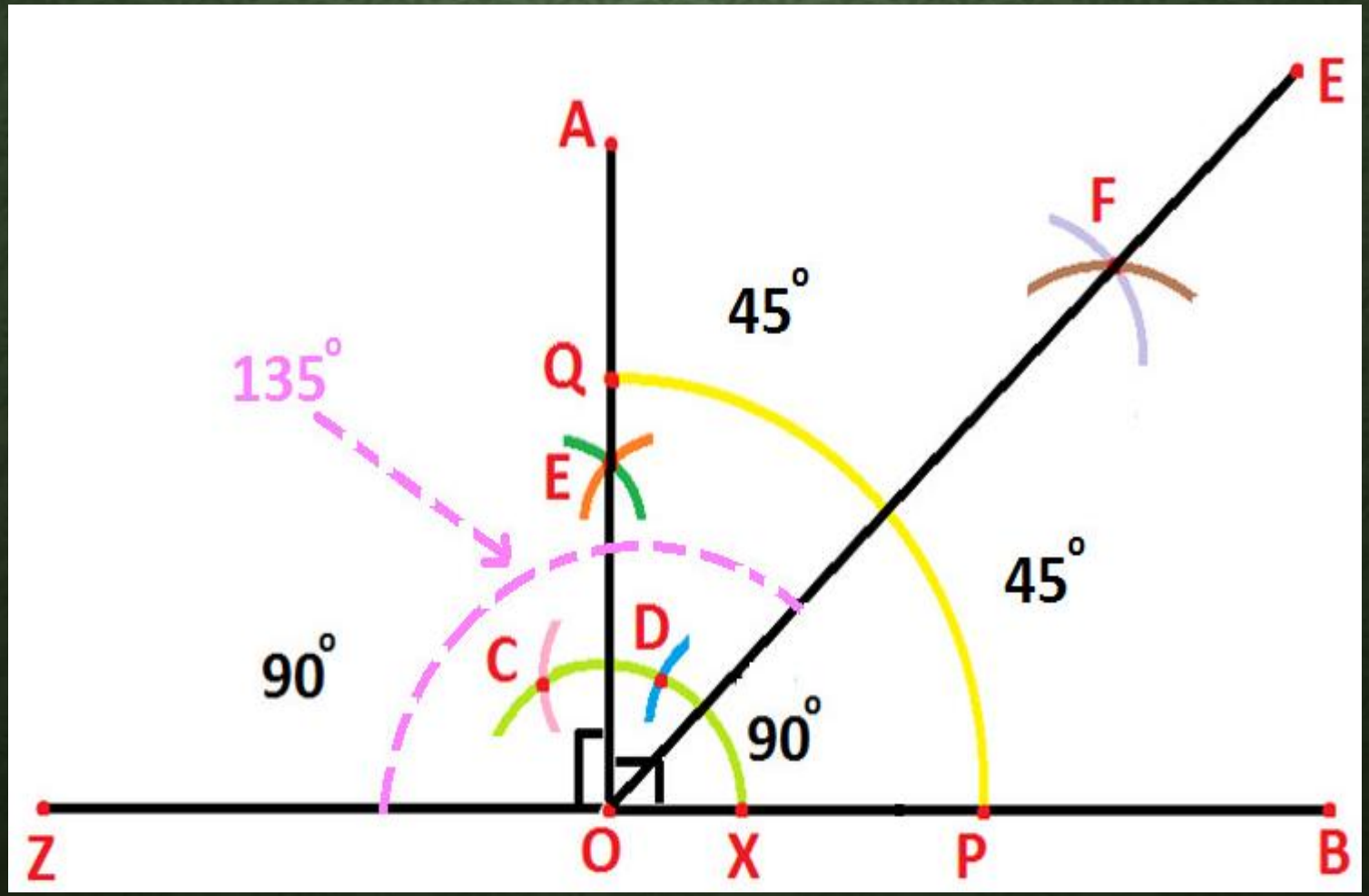
- Since ZB is a straight line, so formed ∠ **AOZ =** 90^0 (angle sum property)
- With **O as center** , draw an arc which cuts **line segment OB at P and OA at Q**



- Again use compass and opened to same radius .And with **P & Q as center** and, draw two arcs which cuts each other at point F.



- Join **OF and extend to E. EO is the bisector** of ∠AOB.
  Angle ZOE = 135°



THANK YOU

V V DURGA BHAVANI

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AECS-2, TARAPUR.