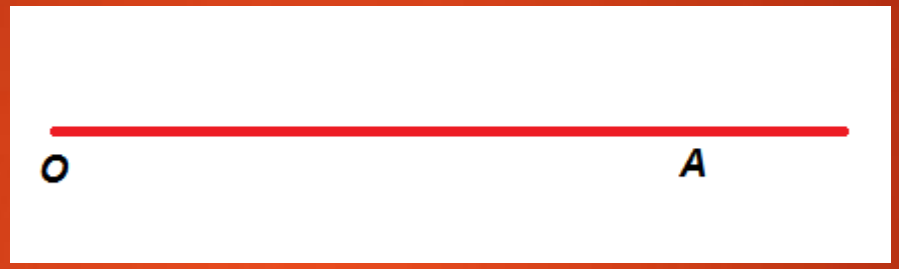
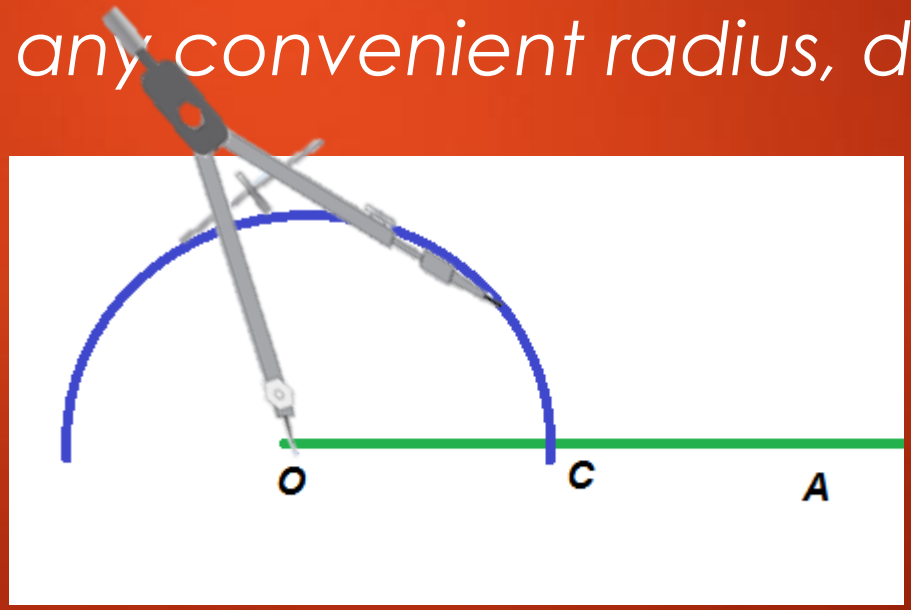
CLASS-6
MODULE-8/8
PRACTICAL GEOMETRY

Construction of an Angle of 75° by using Compass

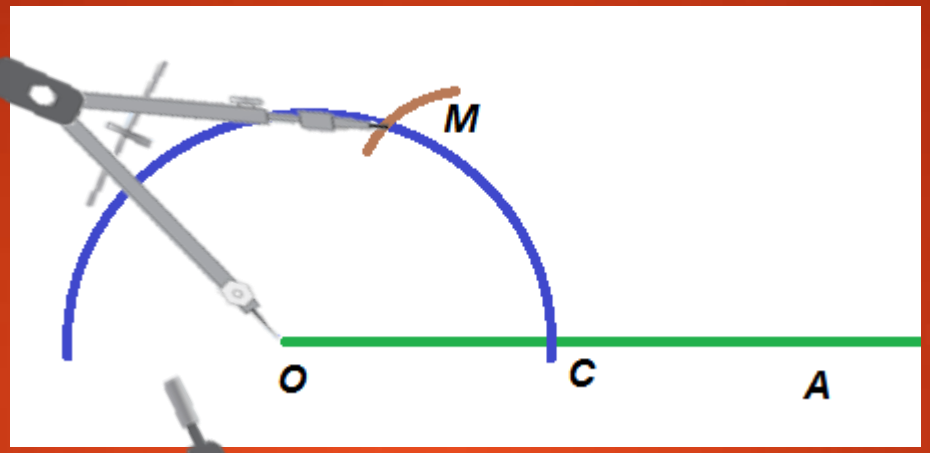
- *Take a ray OA.*



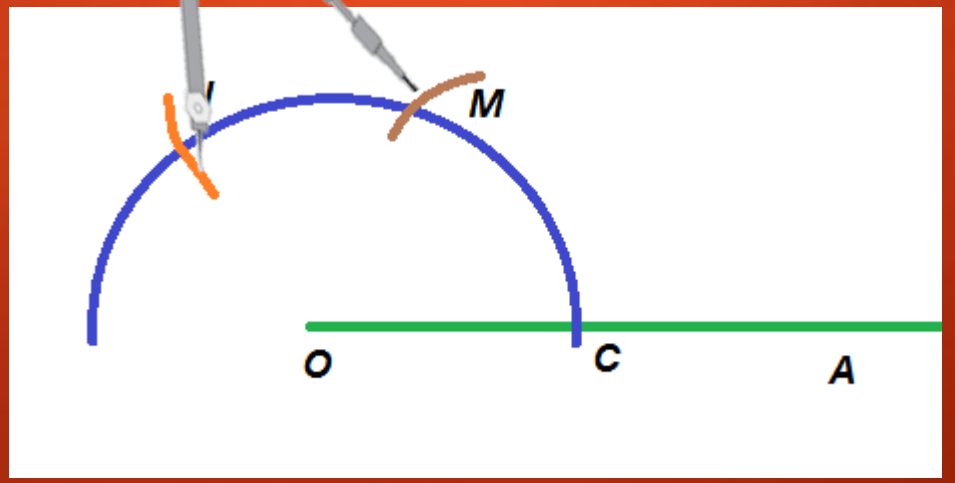
- *With O as centre and any convenient radius, draw an arc cutting OA at C.*



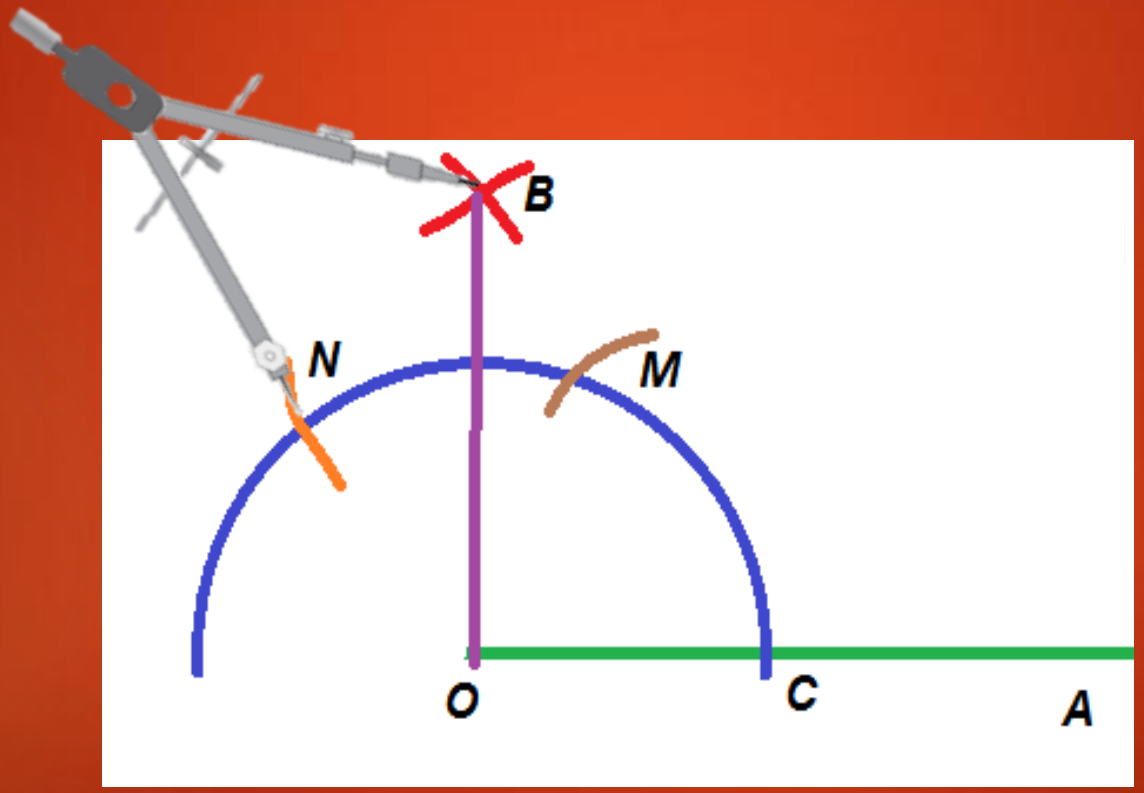
- *With C as centre and the same radius, draw an cutting the first arc at M.*



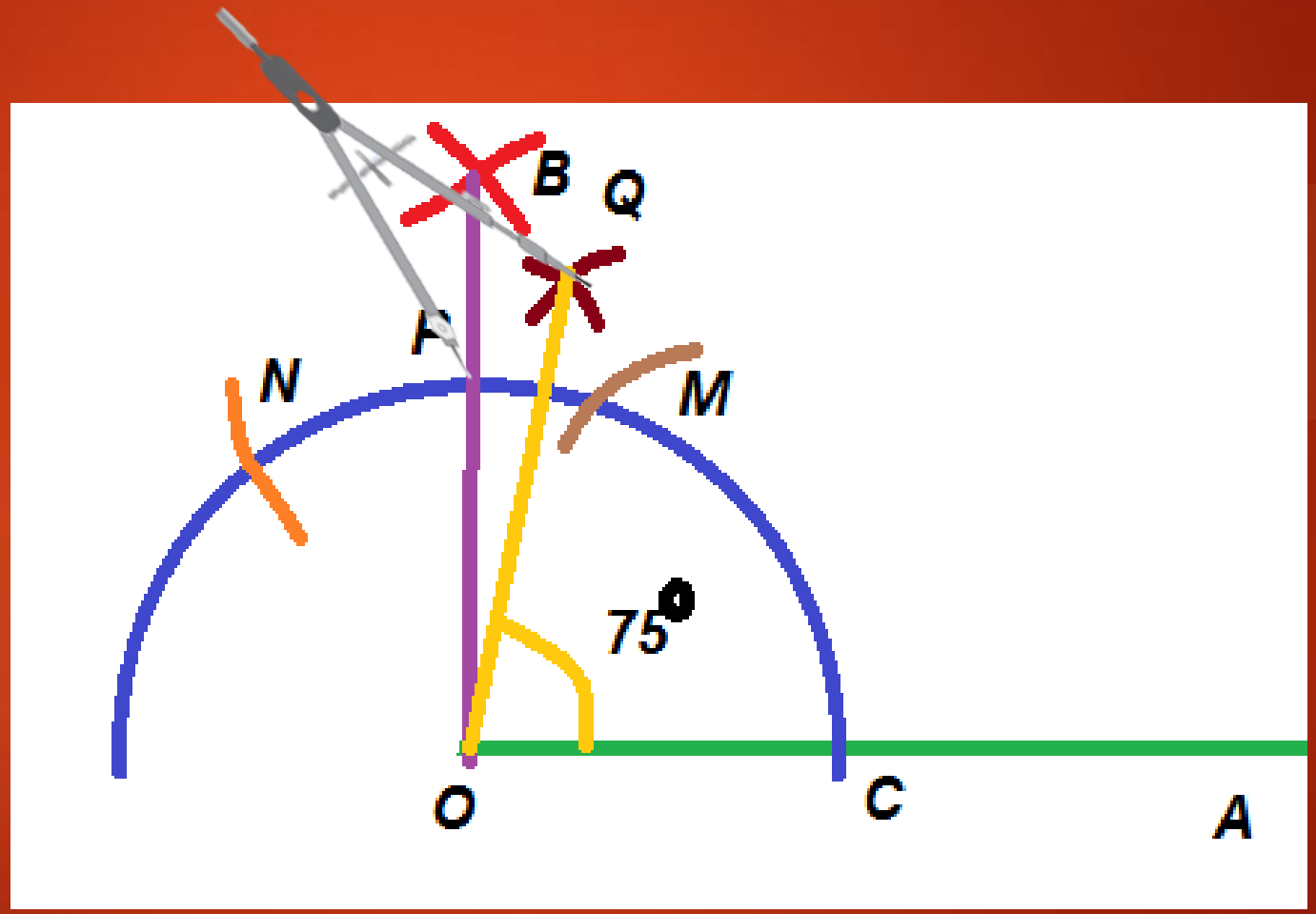
- *With M as centre and the same radius, cut off an arc cutting again the first arc at N.*



- *With M and N as centre and radius of more than half of MN, draw two arcs cutting each other at B, join OB which is making 90°.*

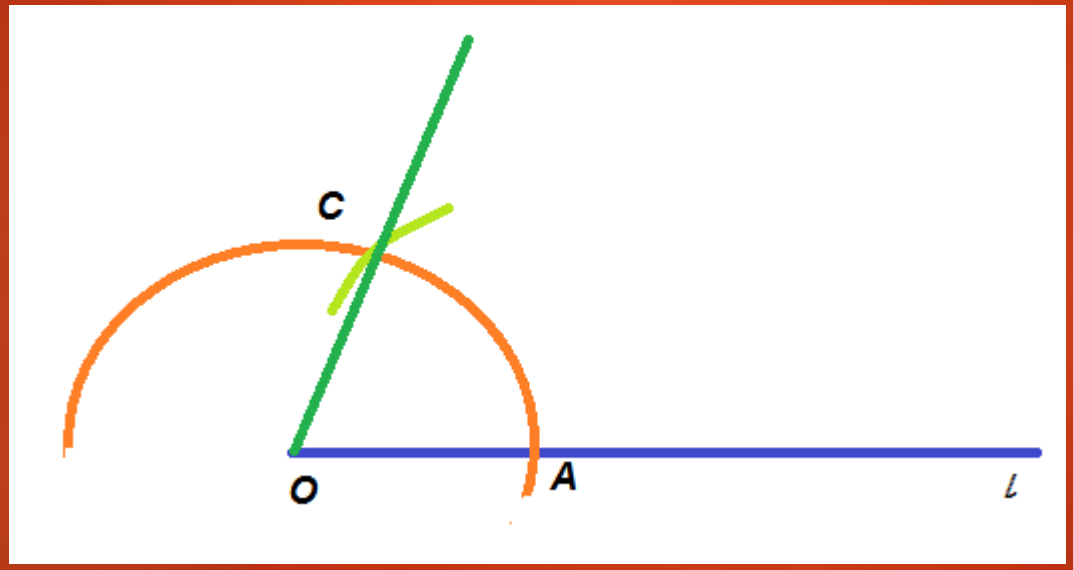


- *Now with P and M as centres again draw two arcs cutting each other at Q.*
- *Join OQ.*
- *QOC =* ***75°***

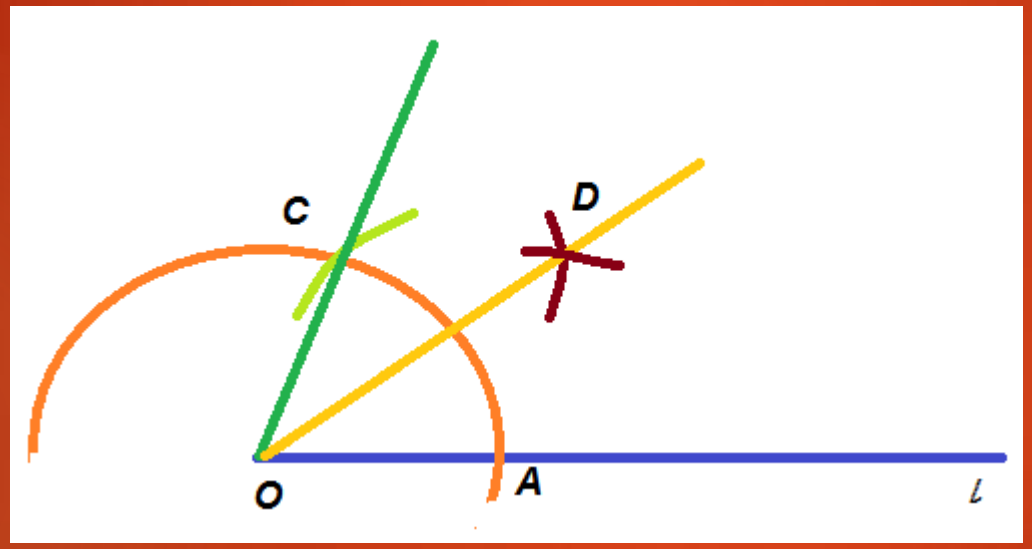


Construction of an Angle of 15° by using Compass

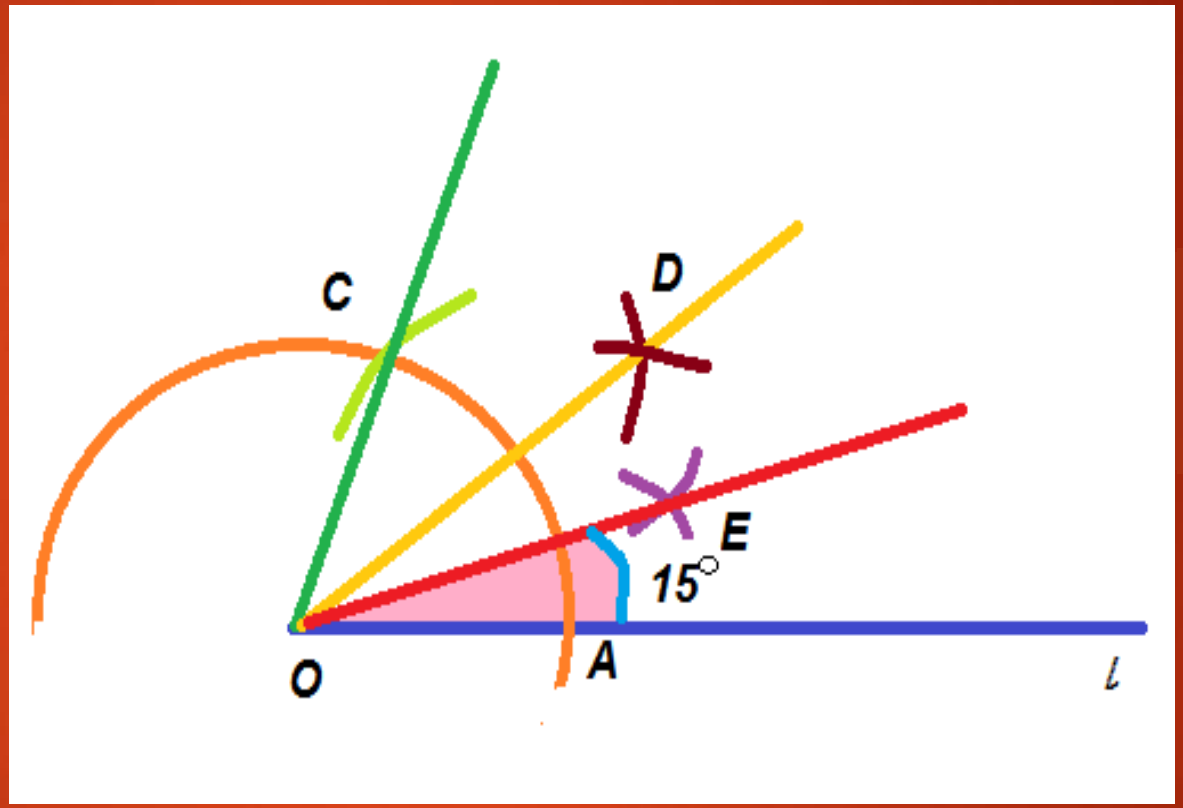
- To construct 15^0 first we have to construct 60^0, say ∠ **COA = 60^0**



- Draw an angle bisector OD to the ∠ COA and ∠ DOA = 30^0

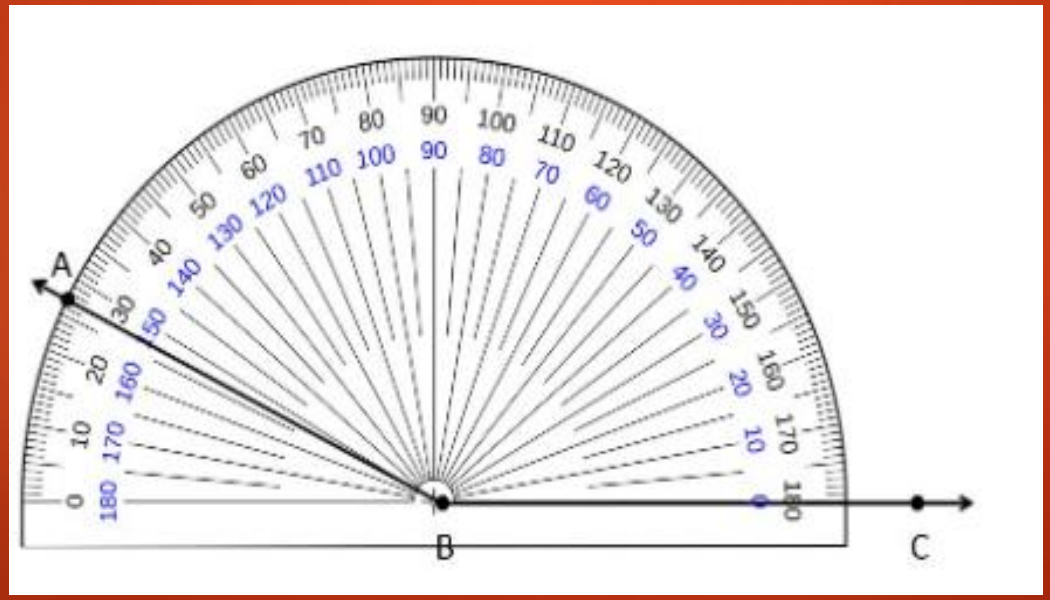


- Draw an angle bisector OE to the ∠ DOA
- ∠ EOA = 15^0

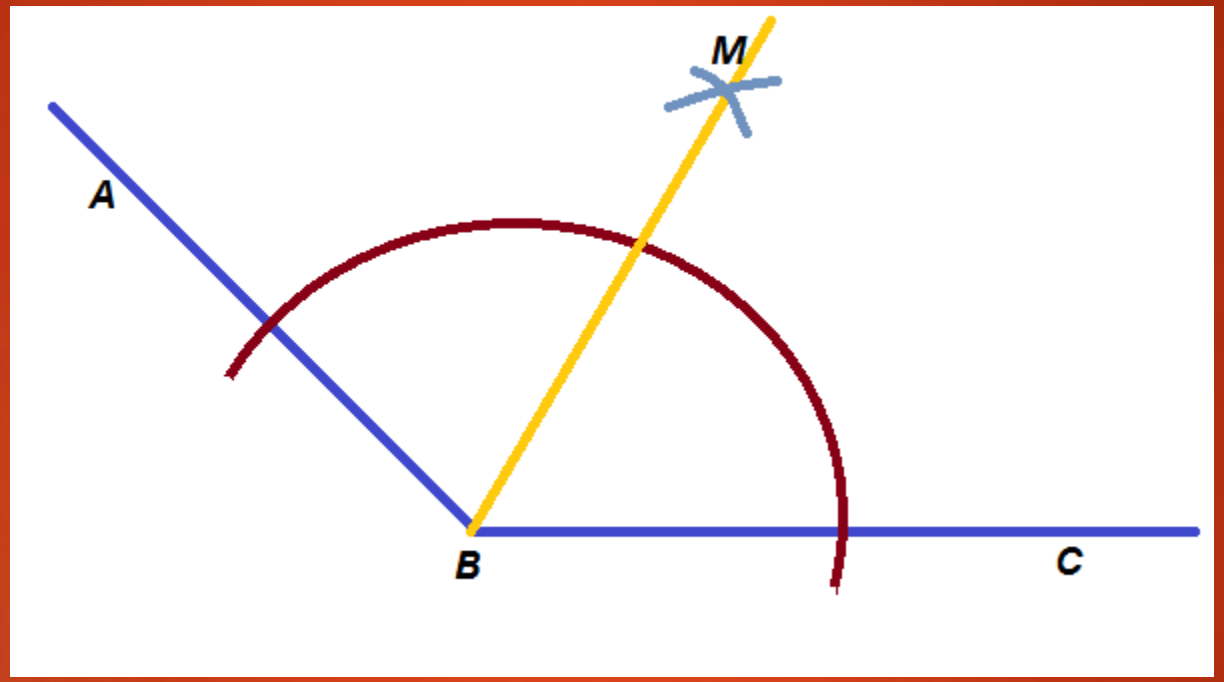


Dividing an angle into four equal parts

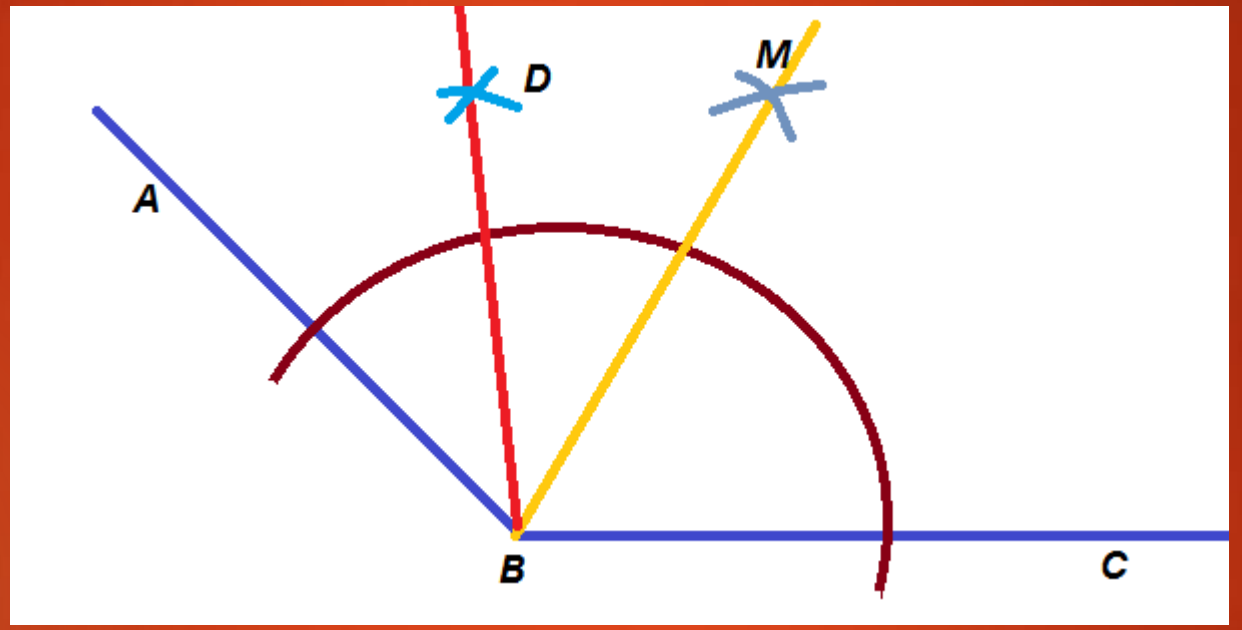
- Draw a ray BC
- At O, with the help of a protractor, construct $\angle ABC = 153^0$



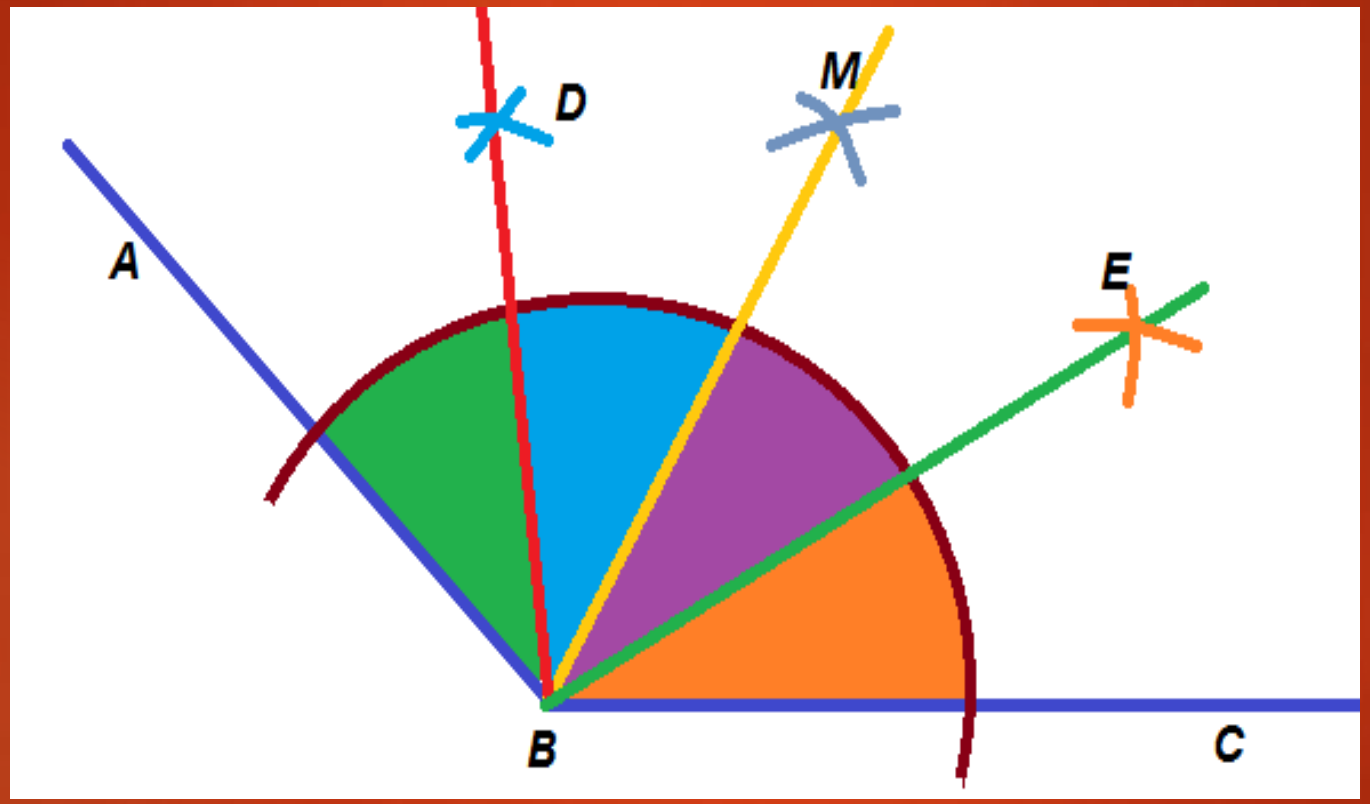
- Draw BM as the bisector of ∠ABC



- Again, draw BD as the bisector of ∠ABM



- Now, draw BE as the bisector of ∠MBC



- Therefore ∠ABC is divided into four equal parts

THANK YOU

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