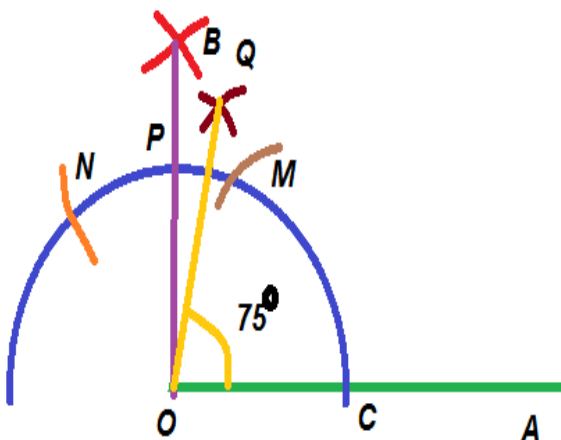


ATOMIC ENERGY CENTRAL SCHOOL

CLASS-6 PRACTICAL GEOMETRY MODULE-8 HANDOUT

Construction of an Angle of 75° by using Compass

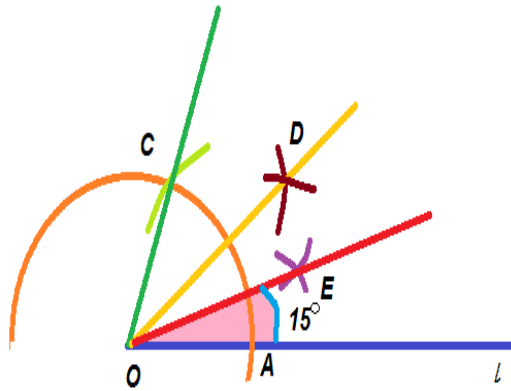
- ▶ Take a ray OA. With O as centre and any convenient radius, draw an arc cutting OA at C.
- ▶ With C as centre and the same radius, draw an arc cutting the first arc at M.
- ▶ With M as centre and the same radius, cut off an arc cutting again the first arc at N.
- ▶ With M and N as centre and radius 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. $\angle QOC = 75^\circ$



Construction of an Angle of 15° by using Compass

To construct 15° first we have to construct 60° , say $\angle COA = 60^\circ$

- ▶ Draw an angle bisector OD to the $\angle COA$ and $\angle DOA = 30^\circ$
- ▶ Draw an angle bisector OE to the $\angle DOA$



$$\angle EOA = 15^{\circ}$$

Dividing an angle into four equal parts

- ▶ Draw a ray BC
- ▶ At O, with the help of a protractor, construct $\angle ABC = 153^{\circ}$
- ▶ Draw BM as the bisector of $\angle ABC$
- ▶ Again, draw BD as the bisector of $\angle ABM$
- ▶ Now, draw BE as the bisector of $\angle MBC$
- ▶ Therefore $\angle ABC$ is divided into four equal parts

