

**To construct an angle of  $60^\circ$ ,  $30^\circ$  and  $15^\circ$**

**CONSTRUCTION:**

We first draw a line segment EF of line L. Then using E as Centre and appropriate compasses separation, construct an arc or curve above the line L to intersect the line segment EF at N. With N as Centre and the same compasses separation, build a second arc or curve to intersect the first arc or curve at O. Now draw a straight line passing through the points E and O. we have basically constructed angle FEO of size  $60^\circ$ .

To construct an angle of  $30^\circ$ , we now bisect the angle of size  $60^\circ$ .

**CONSTRUCTION:**

Using O and N as Centres, bisect angle FEO =  $60^\circ$ . Then angle FEG is our angle of size  $30^\circ$ .

To construct an angle of  $15^\circ$ , we now bisect the angle of magnitude  $30^\circ$ .

**CONSTRUCTION:**

Using T and N as Centres, bisect angle FEG =  $30^\circ$ . Then angle FEU is our angle of size  $15^\circ$ .

Look at the construction below

