

ATOMIC ENERGY CENTRAL SCHOOL

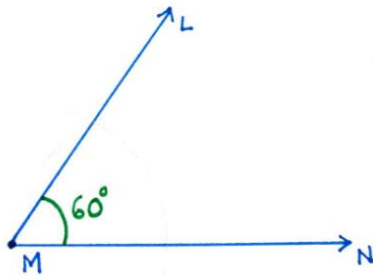
CLASS – 6 PRACTICAL GEOMETRY MODULE – 6 HAND OUT

ANGLES OF SPECIAL MEASURE

- There are some elegant and accurate measures to construct some angles of special sizes which do not require the use of the protractor.
- We discuss a few here.

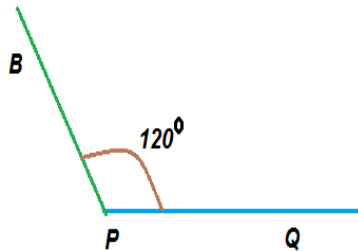
Constructing a 60° angle

- Draw a line l and mark a point 'P' on it
- Place the pointer of the compasses on 'P' and draw an arc of convenient radius which cuts the line PQ.
- With the pointer at Q (ascentre), now draw an arc that passes the previous arc.
- Let the two arcs intersect at B. join PB. We get BPQ whose measure is 60°



Constructing a 120° angle

- Draw a line l and mark a point 'P' on it.
- Place the pointer of the compasses on 'P' and draw an arc of convenient radius which cuts the line PQ.
- With the pointer at Q (ascentre), now draw an arc that passes the previous arc.
- With A as centre draw another arc which cuts the arc which we have drawn first.
- Join PB. $\angle BPQ = 120^\circ$



Constructing a 30° angle

- Draw a ray AB. Let A be the vertex of the angle we're going to construct.
- Place the tip of the compass on A and draw an arc which cuts AB at some point (say X).
- Place the tip of the compass on X and draw another arc which cuts *arc (first one)* at some point (say Y).
- Join AY. Place the tip of the compass on Y and draw another arc
- Connect the points A and Z with a straight line and extend it to form a ray AC.
- The measure of the angle CAB is 30°

