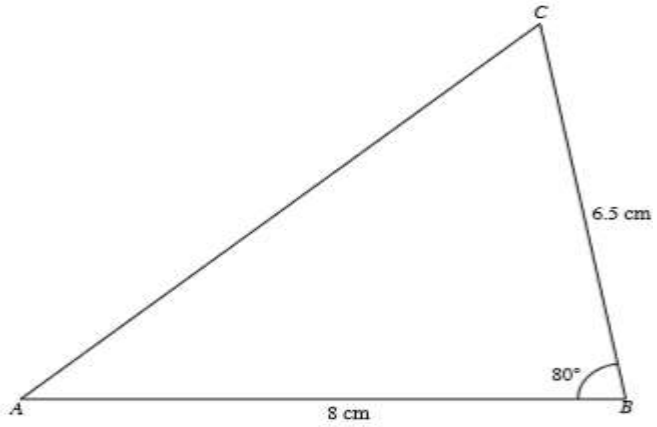
Chapter 12: Geometrical Constructions

Ex-12(A)-Page 305

Q3. Construct $\triangle$ ABC such that AB= 8cm, BC= 6.5cm and $\hat{ABC}$ = 80°. Measure and write down the length of AC.



STEPS: (i) Draw a line segment of length 8cm using a ruler and name as AB.

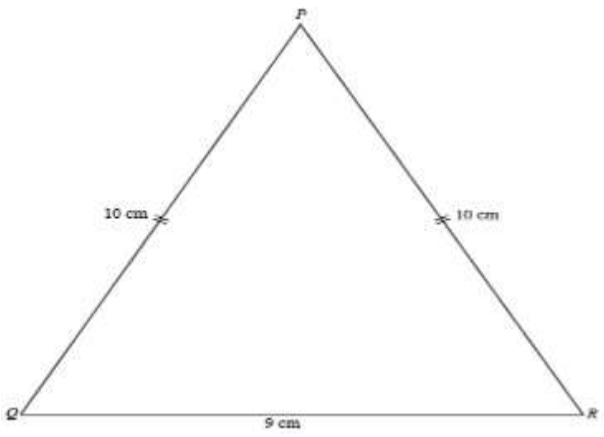
(ii) Since <B= 80°, using a protractor at B, measure and draw the angle 80° and name the line as BK.

(iii) Since BC=6cm, measure 6cm in compass and keeping B as centre, cut an arc from B in the line BK and name the point as C.

(iv) Join AC and the required triangle ABC is constructed.

(v) Using ruler, measure the length of AC and AC = 9.4cm

Q5. Construct an isosceles triangle PQR such that PQ=PR= 10cm and QR= 9cm. Measure and write down the size of $\hat{QPR}$.



Steps: (i) Using a ruler, draw QR= 9cm.

(ii) Since PQ=10cm, with Q as centre and 10cm as radius, draw an arc.

(iii) Since PR=10cm, with R as centre and 10cm as radius, cut the previous drawn arc and name it as P.

(iv) Join PQ and PR and the required triangle PQR is constructed.

(v) Using protractor at P, measure <QPR and <QPR = 53°