

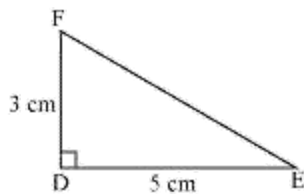
Board – CBSE

Class – 7th

Topic – Practical Geometry 10.3

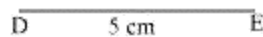
Q.1 Construct $\triangle DEF$ such that $DE = 5$ cm, $DF = 3$ cm and $m \angle EDF = 90^\circ$.

Sol: The rough sketch of the required $\triangle DEF$ is as follows.

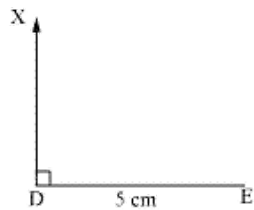


The steps of construction are as follows.

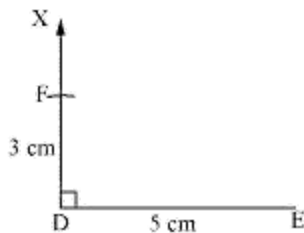
(i) Draw a line segment DE of length 5 cm.



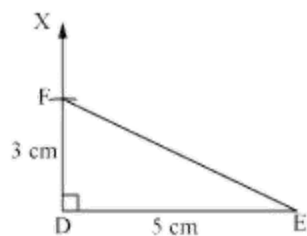
(ii) At point D , draw a ray DX making an angle of 90° with DE .



(iii) Taking D as centre, draw an arc of 3 cm radius. It will intersect DX at point F .

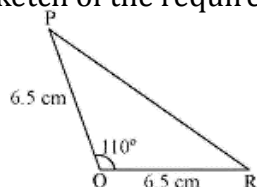


(iv) Join F to E . $\triangle DEF$ is the required triangle.



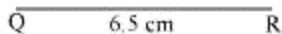
Q.2 Construct an isosceles triangle in which the lengths of each of its equal sides is 6.5 cm and the angle between them is 110° .

Sol: An isosceles triangle PQR has to be constructed with $PQ = QR = 6.5$ cm. A rough sketch of the required triangle can be drawn as follows.

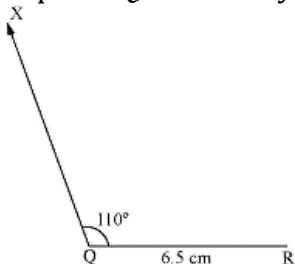


The steps of construction are as follows.

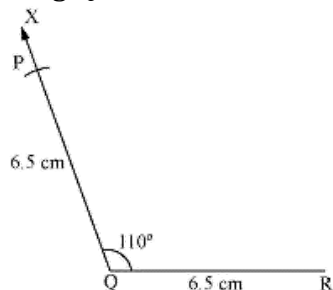
(i) Draw the line segment QR of length 6.5 cm.



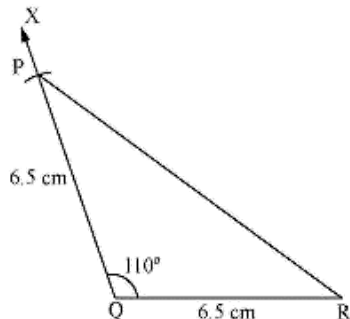
(ii) At point Q, draw a ray QX making an angle 110° with QR.



(iii) Taking Q as centre, draw an arc of 6.5 cm radius. It intersects QX at point P.

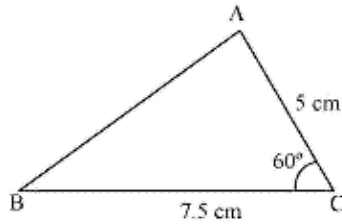


(iv) Join P to R to obtain the required triangle PQR.



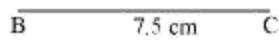
Q.3 Construct $\triangle ABC$ with $BC = 7.5$ cm, $AC = 5$ cm and $m \angle C = 60^\circ$.

Sol: A rough sketch of the required triangle is as follows.

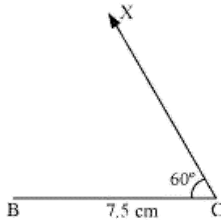


The steps of construction are as follows.

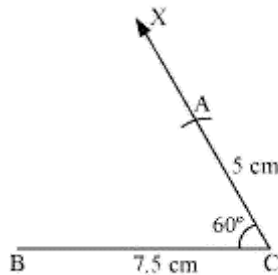
(i) Draw a line segment BC of length 7.5 cm.



(ii) At point C, draw a ray CX making 60° with BC.



(iii) Taking C as centre, draw an arc of 5 cm radius. It intersects CX at point A.



(iv) Join A to B to obtain triangle ABC.

