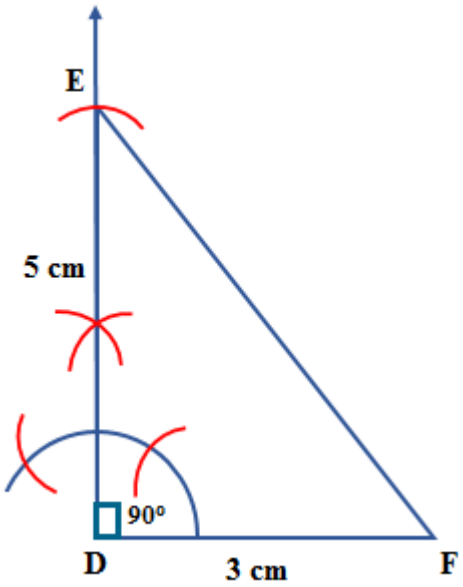
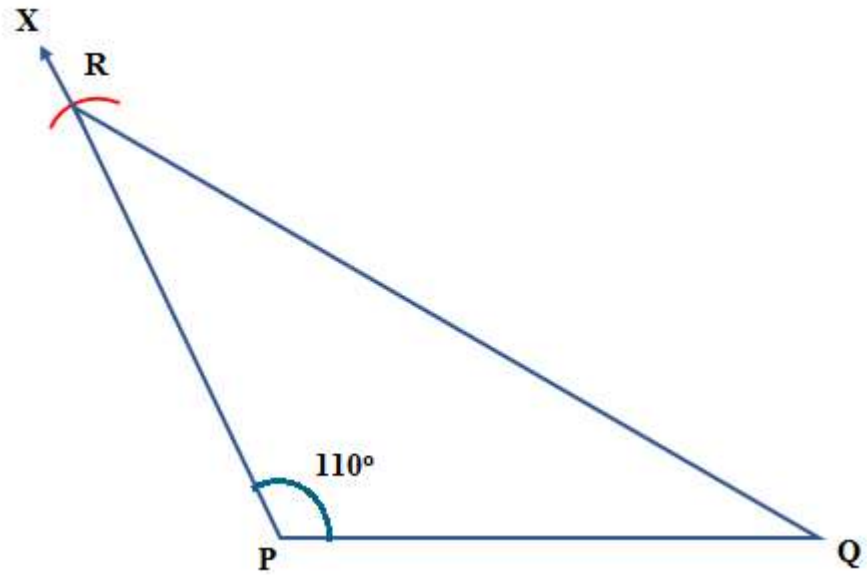
Practical Geometry: Exercise 10.3

Q.1 Construct ΔDEF such that DE = 5 cm, DF = 3 cm and m∠EDF = 90°.
Sol:



Construction Steps:
1. Firstly, draw a line segment DF of length 3 cm with help of pencil and ruler.
2. Now, at point D, make an angle of 90° with help of compass and draw the ray DX.
3. Take D as a centre and mark an arc of radius 5 cm along the ray DX. We get the point E
4. Now, join points E and F.
Thus, ΔEDF is the required right angled 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:

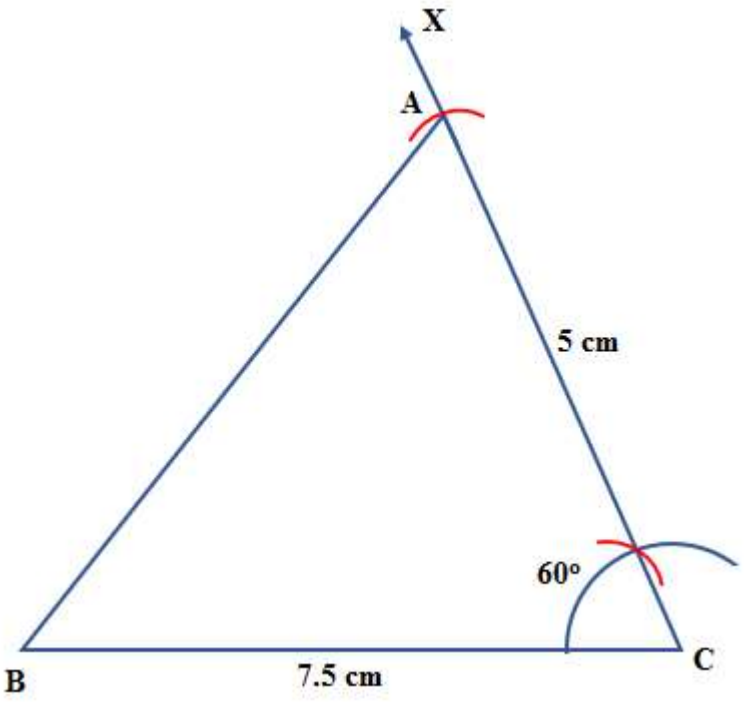
Construction Steps:

1. Firstly, draw a line segment PQ of length 6.5 cm with help of pencil and ruler.
2. Now, at point P, make an angle of 110° with help of protector and draw the ray PX.
3. Take the p as centre and mark an arc of radius 6.5cm with help of compass. We get the point R
4. Now, join points Q and R.

Thus, ΔPQR is the required isosceles triangle.

Q.3 Construct ΔABC with BC = 7.5 cm, AC = 5 cm and m∠C = 60°.

Sol:



Construction Steps:

1. Firstly, draw a line segment BC of length 7.5 cm with help of pencil and ruler.
2. Now, at point C, make an angle of 60° with help of compass and raw the CX.
3. Take C as a centre and mark an arc of radius 5cm with help of compass. We get the point A
4. Now, join points A and B.

Thus, ΔABC is the required triangle.