Chapter – 10
Practical Geometry
Exercise 10.3

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

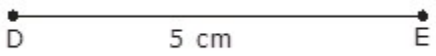
Answer:

Here,

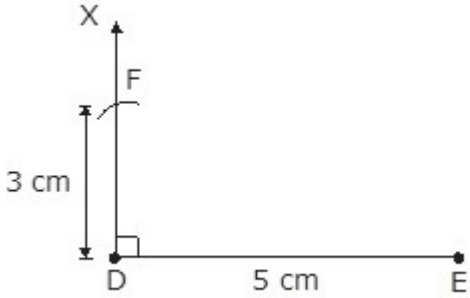
According to the question,

We have to draw figure using following steps of construction:

Step 1: Draw a line segment DE of 5 cm

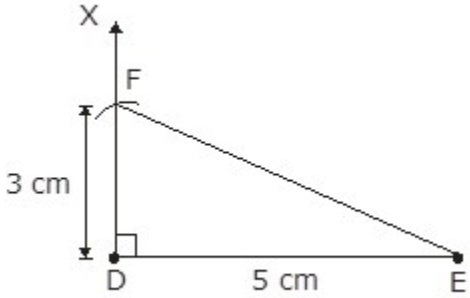


Step 2: Now, from point D draw a ray DX making an angle of 90° from DE and taking D as a center and radius 3 cm mark an arc intersecting DX at F.



Step 3: Join F to E.

Hence ΔDEF is the required triangle.



2. Construct an isosceles triangle in which the length of each of its equal sides is 6.5 cm and the angle between them is 110^{o}.

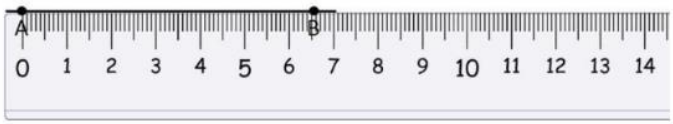
Answer:

Here,

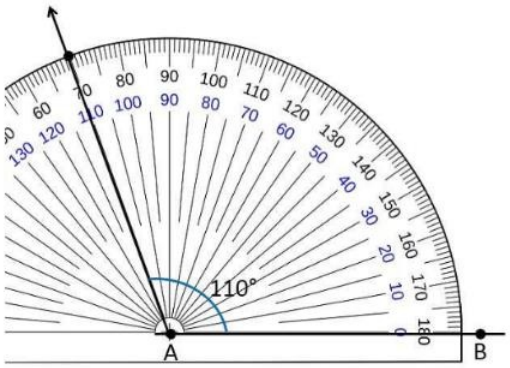
According to the question,

We have to draw figure using following steps of construction:

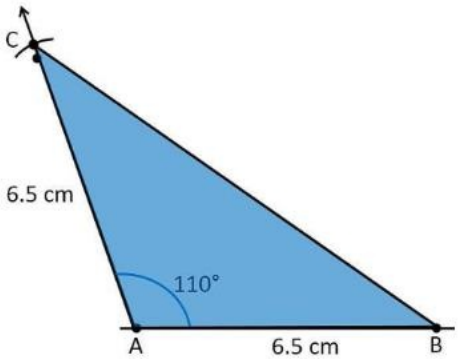
Step 1: Draw a line segment AB of 6.5 cm



Step 2: Now, from point A draw a ray AC making an angle of 110° from QR (with the help of protractor)



Step 3: Now, taking A as a centre and radius 6.5 cm mark an arc intersecting the line drawn in previous step. Mark the intersecting point as C. Final figure is



Hence ΔABC is the required triangle.

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

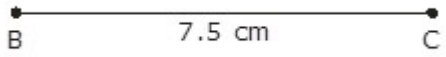
Answer:

Here,

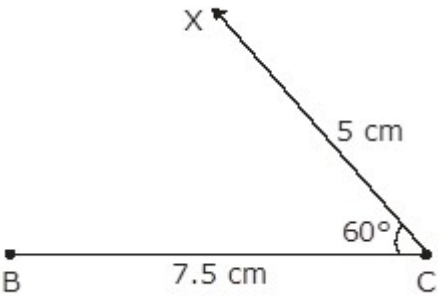
According to the question,

We have to draw figure using following steps of construction:

Step 1: Draw a line segment BC of 7.5 cm



Step 2: Now, from point C draw a ray CX making an angle of 60° from BC.



Step 3: Now, taking C as a center and radius 5 cm mark an arc intersecting CX at A. Then, join A to B.

Hence ΔABC is the required triangle.