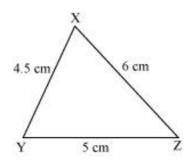


NCERT Solutions For Class 7 Maths Practical Geometry Exercise 10.2

Q1. Construct ΔXYZ in which XY = 4.5 cm, YZ = 5 cm and ZX = 6 cm.

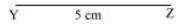
Ans: The rough figure of this triangle is as follows.



The required triangle is constructed as follows.

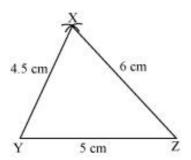
(i) Draw a line segment YZ of length 5 cm.

(ii) Point X is at a distance of 4.5 cm from point Y. Therefore, taking point Y as centre, draw an arc of 4.5 cm radius.



(iii) Point X is at a distance of 6 cm from point Z. Therefore, taking point Z as centre, draw an arc of 6 cm radius. Mark the point of intersection of the arcs as X. Join XY and XZ.

(iii) Point X is at a distance of 6 cm from point Z. Therefore, taking point Z as centre, draw an arc of 6 cm radius. Mark the point of intersection of the arcs as X. Join XY and XZ.



XYZ is the required triangle.

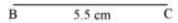
Q2. Construct an equilateral triangle of side 5.5 cm.

Ans: An equilateral triangle of side 5.5 cm has to be constructed. We know that all sides of an equilateral triangle are of equal length. Therefore, a triangle ABC has to be constructed with AB = BC = CA = 5.5 cm.

The steps of construction are as follows.

(i) Draw a line segment BC of length 5.5 cm.

(ii) Taking point B as centre, draw an arc of 5.5 cm radius.

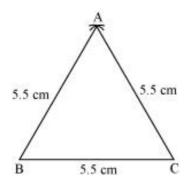


(iii) Taking point C as centre, draw an arc of 5.5 cm radius to meet the previous arc at point A.



D	£ £	
В	2.2 cm	

(iv) Join A to B and C.



ABC is the required equilateral triangle.

Q3. Draw \triangle PQR with PQ = 4 cm, QR = 3.5 cm and PR = 4 cm. What type of triangle is this? **Ans:** The steps of construction are as follows.

(i) Draw a line segment QR of length 3.5 cm.

(ii) Taking point Q as centre, draw an arc of 4 cm radius.

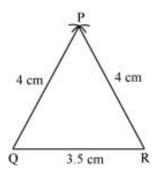


	222 2212 DZ 121	
0	3.5 cm	R
	to the water	277.7

(iii) Taking point R as centre, draw an arc of 4 cm radius to intersect the previous arc at point P.



(iv) Join P to Q and R.



 ΔPQR is the required triangle. As the two sides of this triangle are of the same length (PQ = PR), therefore, ΔPQR is an isosceles triangle.

Q4. Construct \triangle ABC such that AB = 2.5 cm, BC = 6 cm and AC = 6.5 cm. Measure \angle B. **Ans:** The steps of construction are as follows.

(i) Draw a line segment BC of length 6 cm.

B 6 cm C

(ii) Taking point C as centre, draw an arc of 6.5 cm radius.

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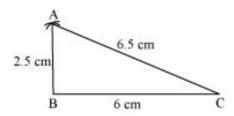
B 6 cm 0

(iii) Taking point B as centre, draw an arc of radius 2.5 cm to meet the previous arc at point A.

A

B 6 cm (

(iv) Join A to B and C.



 ΔABC is the required triangle. \angle B can be measured with the help of protractor. It comes to 90°.

********* END *******