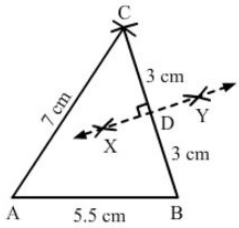
Constructions Ex 17.2 Q1

Answer :

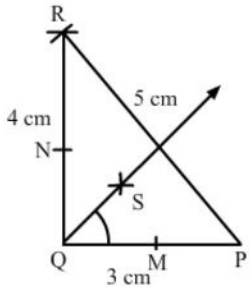
Steps of construction:
Draw a line segment AB of length 5.5 cm.
From B, cut an arc of radius 6 cm.
With centre A, draw an arc of radius 7 cm intersecting the previously drawn arc at say, C.
Join AC and BC to obtain the desired triangle.
With centre B and radius more than $\frac{1}{2}BC$, draw two arcs on both sides of BC.
With centre C and the same radius as in the previous step, draw two arcs intersecting the arcs drawn in the previous step at X and Y.
Join XY to get the perpendicular bisector of BC.



Constructions Ex 17.2 Q2

Answer :

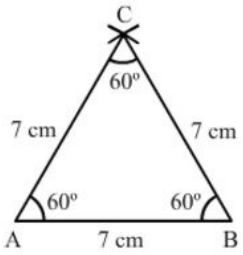
Steps of construction:
Draw a line segment PQ of length 3 cm.
With Q as centre and radius 4 cm, draw an arc.
With P as centre and radius 5 cm, draw an arc intersecting the previously drawn arc at R.
Join PR and QR to obtain the required triangle.
From Q, cut arcs of equal radius intersecting PQ and QR at M and N, respectively.
From M and N, cut arcs of equal radius intersecting at point S.
7. Join QS and extend to produce the angle bisector of angle PQR.
8. Verify that angle PQS and angle SQR are equal to 45° each.



Constructions Ex 17.2 Q3

Answer :

Steps of construction:
Draw a line segment AB of length 7 cm.
With centre A, draw an arc of radius 7 cm.
With centre B, draw an arc of radius 7 cm intersecting the previously drawn arc at C.
Join AC and BC to get the required triangle.



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