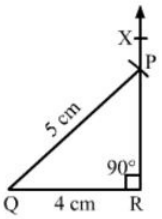
Constructions Ex 17.5 Q1

Answer :

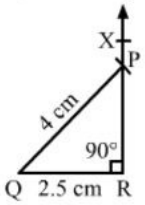
Steps of construction:
Draw a line segment QR = 4 cm.
Draw ∠QRX of measure 90°.
With centre Q and radius PQ = 5 cm, draw an arc of the circle to intersect ray RX at P.
Join PQ to obtain the desired triangle PQR.
PQR is the required triangle.



Constructions Ex 17.5 Q2

Answer :

Steps of construction:
Draw a line segment QR = 2.5 cm.
Draw ∠QRX of measure 90°.
With centre Q and radius PQ = 4 cm, draw an arc of the circle to intersect ray RX at P.
Join PQ to obtain the desired triangle PQR.
PQR is the required triangle.

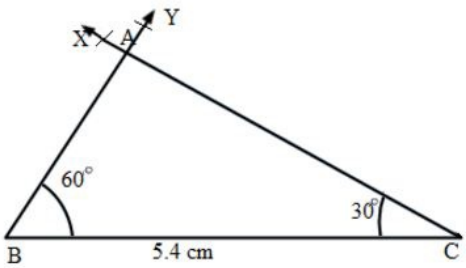


Constructions Ex 17.5 Q3

Answer :

Let ABC be the right triangle at A such that hypotenuse BC = 5.4 cm. Let $\angle C = 30^\circ$.
Therefore $\angle A + \angle B + \angle C = 180^\circ$
$\angle B = 180 - 30 - 90 = 60^\circ$

Steps of construction:
Draw a line segment BC = 5.4 cm.
Draw angle CBY = 60°.
Draw angle BCX of measure 30° with X on the same side of BC as Y.
Let BY and CX intersect at A.
Then ABC is the required triangle.



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