

Mathematics

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(Chapter – 10) (Practical Geometry)

(Class – VII)

Exercise 10.5

Question 1:

Construct the right angled $\triangle PQR$, where $m\angle Q = 90^\circ$, $QR = 8$ cm and $PR = 10$ cm.

Answer 1:

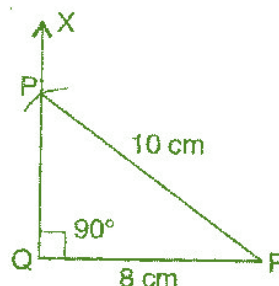
To construct:

A right angled triangle PQR where $m\angle Q = 90^\circ$, $QR = 8$ cm and $PQ = 10$ cm.

Steps of construction:

- Draw a line segment $QR = 8$ cm.
- At point Q , draw $QX \perp QR$.
- Taking R as centre, draw an arc of radius 10 cm.
- This arc cuts QX at point P .
- Join PQ .

It is the required right angled triangle PQR .



Question 2:

Construct a right angled triangle whose hypotenuse is 6 cm long and one the legs is 4 cm long.

Answer 2:

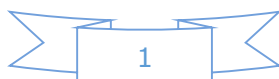
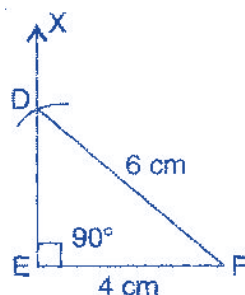
To construct:

A right angled triangle DEF where $DF = 6$ cm and $EF = 4$ cm

Steps of construction:

- Draw a line segment $EF = 4$ cm.
- At point E , draw $EX \perp EF$.
- Taking F as centre and radius 6 cm, draw an arc. (Hypotenuse)
- This arc cuts the EX at point D .
- Join DF .

It is the required right angled triangle DEF .



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Question 3:

Construct an isosceles right angled triangle ABC, where $m\angle ACB = 90^\circ$ and $AC = 6$ cm.



Answer 3:

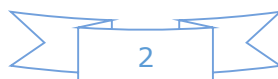
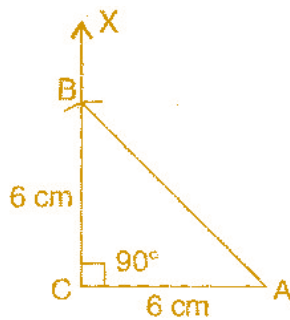
To construct:

An isosceles right angled triangle ABC where $m\angle C = 90^\circ$, $AC = BC = 6$ cm.

Steps of construction:

- Draw a line segment $AC = 6$ cm.
- At point C, draw $XC \perp CA$.
- Taking C as centre and radius 6 cm, draw an arc.
- This arc cuts CX at point B.
- Join BA.

It is the required isosceles right angled triangle ABC.



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