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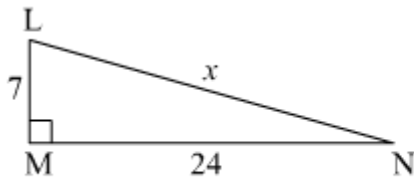
(Affiliated to CBSE up to +2 Level)

CLASS: VII

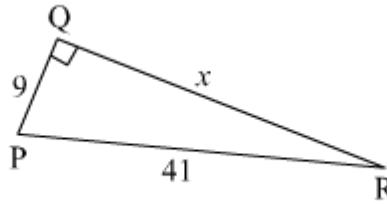
SUB.: MATHS (NCERT BASED)

DATE: 17-09-2020

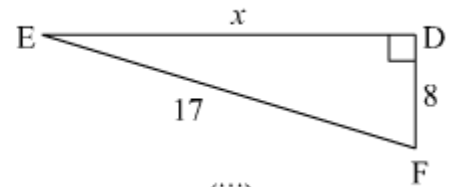
Q 1: In the figures below, find the value of 'x'.



(i)



(ii)



(iii)

Solution: - (i) In the right angled triangle LMN, $\angle M = 90^\circ$. Hence, side LN is the hypotenuse.

According to Pythagoras' theorem,

$$l(LN)^2 = l(LM)^2 + l(MN)^2$$

$$\Rightarrow (x)^2 = (7)^2 + (24)^2$$

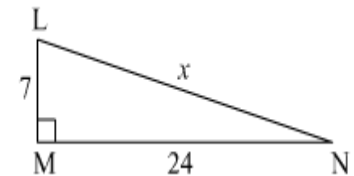
$$\Rightarrow x^2 = 49 + 576$$

$$\Rightarrow x^2 = 625$$

$$\Rightarrow x^2 = (25)^2$$

$$\Rightarrow x = 25$$

\therefore the value of x is 25.



Q2: In the right-angled ΔPQR , $\angle P = 90^\circ$. If $l(PQ) = 24$ cm and $l(PR) = 10$ cm, find the length of seg QR.

Solution: - In the right angled triangle PQR, $\angle P = 90^\circ$. Hence, side QR is the hypotenuse.

According to Pythagoras' theorem,

$$l(QR)^2 = l(PQ)^2 + l(PR)^2$$

$$\Rightarrow l(QR)^2 = (24)^2 + (10)^2$$

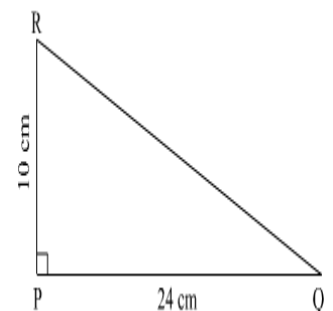
$$\Rightarrow l(QR)^2 = 576 + 100$$

$$\Rightarrow l(QR)^2 = 676$$

$$\Rightarrow l(QR)^2 = (26)^2$$

$$\Rightarrow l(QR) = 26$$

\therefore Length of seg QR = 26 cm.



Q 3: In the right-angled ΔLMN , $\angle M = 90^\circ$. If $l(LM) = 12$ cm and $l(LN) = 20$ cm, find the length of seg MN.

Q 4: The top of a ladder of length 15 m reaches a window 9 m above the ground. What is the distance between the base of the wall and that of the ladder ?