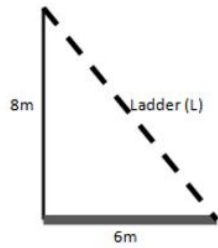




Properties of Triangles Ex 15.5 Q9

Answer :



Given

Let the length of the ladder be L m.

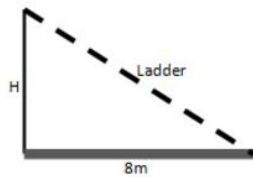
By using the Pythagoras theorem, we can find the length of the ladder.

$$6^2 + 8^2 = L^2$$

$$\Rightarrow L^2 = 36 + 64 = 100$$

$$\Rightarrow L = 10$$

Thus, the length of the ladder is 10 m.



When ladder is shifted

When the ladder is shifted :

Let the height of the ladder after it is shifted be H m.

By using the Pythagoras theorem, we can find the height of the ladder after it is shifted.

$$8^2 + H^2 = 10^2$$

$$\Rightarrow H^2 = 100 - 64 = 36$$

$$\Rightarrow H = 6$$

Thus, the height of the ladder is 6 m.

***** END *****