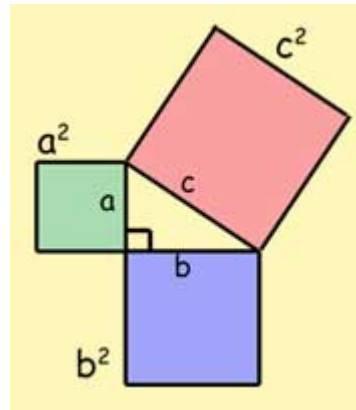


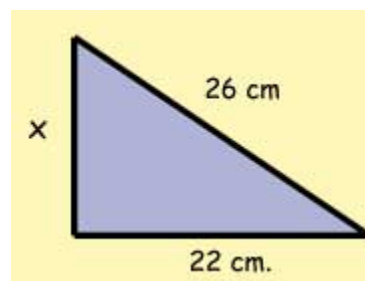
Pythagoras' Theorem

$$c^2 = a^2 + b^2$$

The square on the hypotenuse is equal to the sum of the squares on the other two sides.

$$a^2 = c^2 - b^2$$

$$b^2 = c^2 - a^2$$

Example #1- given the hypotenuse & one side

$$22^2 + x^2 = 26^2$$

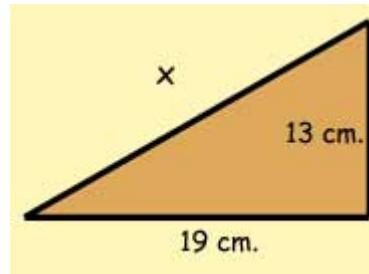
$$x^2 = 26^2 - 22^2$$

$$= 676 - 484$$

$$= 192$$

$$x = \sqrt{192} = 13.8564$$

$$= \underline{13.86} \text{ (2 d.p.)}$$

Example #2 - given two sides

$$\begin{aligned}x^2 &= 13^2 + 19^2 \\&= 169 + 361 = 530 \\x &= \sqrt{530} = 23.0217 \\&= \underline{23.02} \text{ (2 d.p.)}\end{aligned}$$