

# Chapter 13 The Pythagoras' Theorem

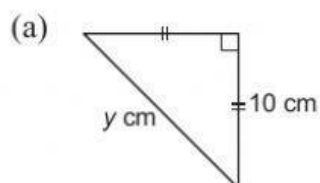


MASTERY



13.1

1. Using the Pythagoras' Theorem, find the value of  $y$  in each of the following diagrams. Give your answers correct to two decimal places.

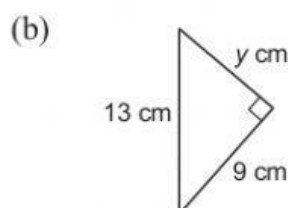


$$y^2 = \boxed{\phantom{00}}^2 + \boxed{\phantom{00}}^2$$

$$y^2 = \boxed{\phantom{00}}$$

$$y = \sqrt{\phantom{00}}$$

$$y = \boxed{\phantom{00}} \text{ cm}$$



$$13^2 = \boxed{\phantom{00}}^2 + \boxed{\phantom{00}}^2$$

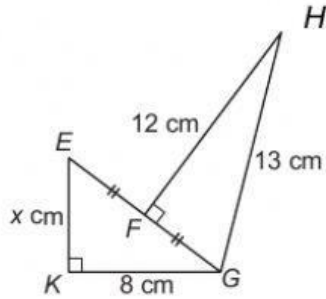
$$y^2 = 13^2 - \boxed{\phantom{00}}^2$$

$$y = \sqrt{\phantom{00}}$$

$$y = \boxed{\phantom{00}} \text{ cm}$$

2. Calculate the value of  $x$  in each of the following diagrams:

(a)



$$GF^2 = 13^2 - \boxed{\phantom{00}}^2$$

$$GF^2 = \boxed{\phantom{00}}$$

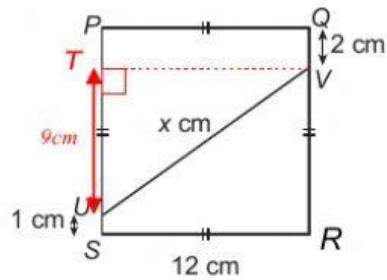
$$GF = \sqrt{\phantom{00}} = \boxed{\phantom{00}} \text{ cm}$$

$$EG = 2 GF = 10 \text{ cm}$$

$$x^2 = 10^2 - 8^2$$

$$x = \sqrt{\phantom{00}} = \boxed{\phantom{00}} \text{ cm}$$

(b)



*Note: Red dotted line is a newly added line to form a right angled triangle. Point T is a newly added point.*

$$SR = PQ = PS = \boxed{\phantom{00}} \text{ cm}$$

$$UT = 12 - 1 - 2 = \boxed{\phantom{00}}$$

$$x^2 = 9^2 + \boxed{\phantom{00}}^2$$

$$x = \sqrt{\phantom{00}} = \boxed{\phantom{00}} \text{ cm}$$

