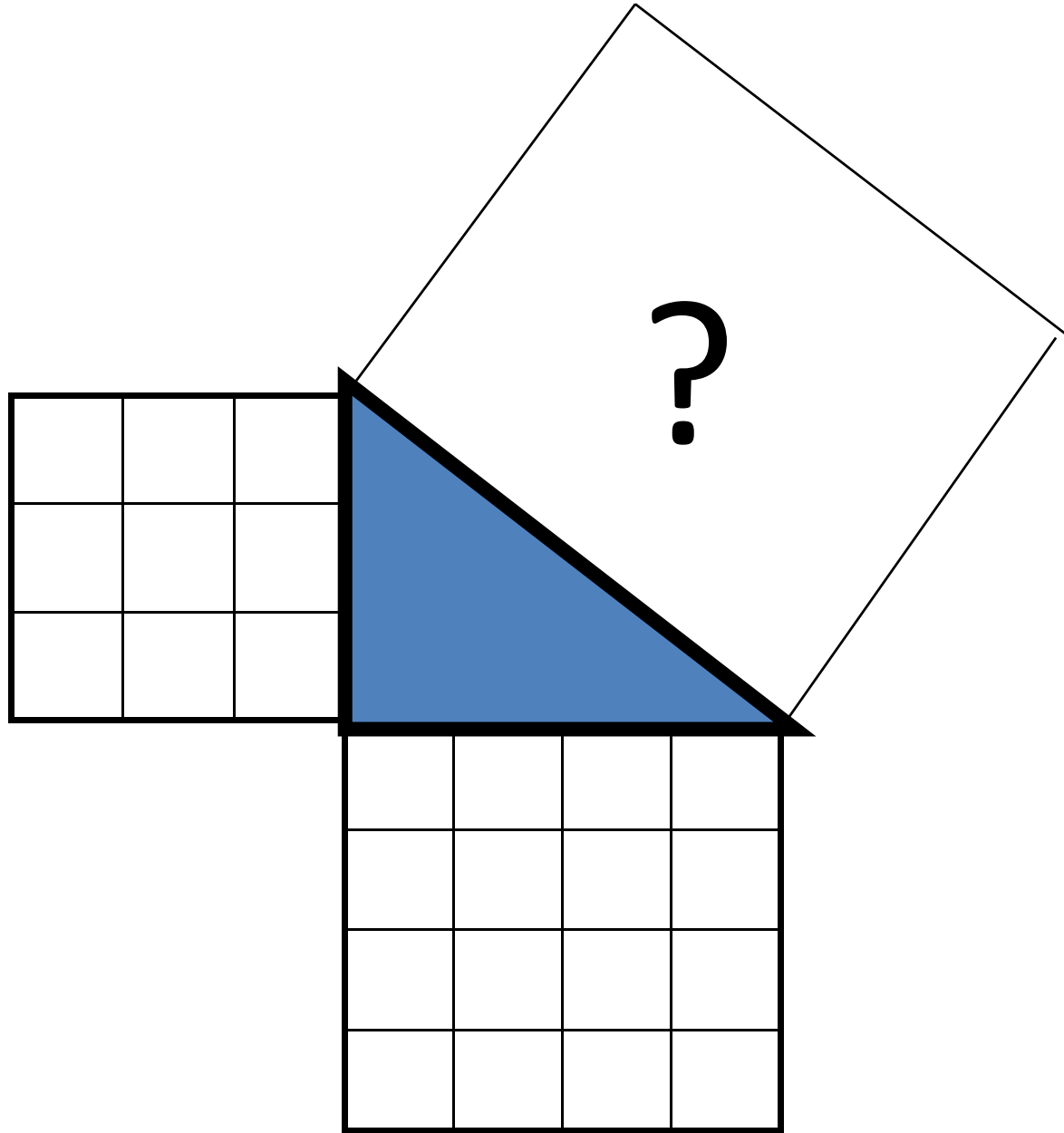
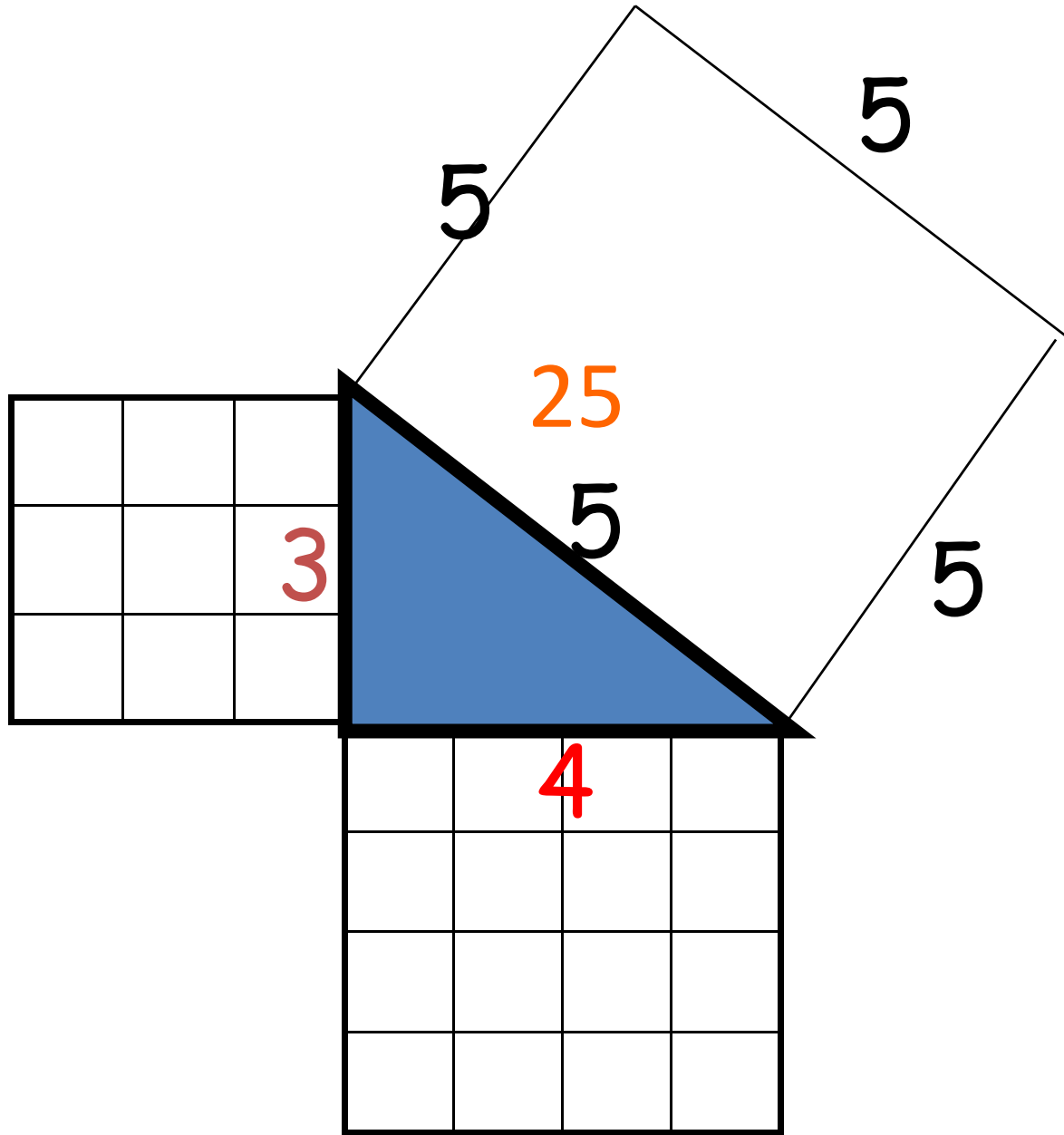


# Pythagoras' Theorem



Draw a right angle triangle with one side 3 squares long and the other 4 then investigate the area of the big square



The area of  
the big square  
is 25.

$$25 = 9 + 16$$

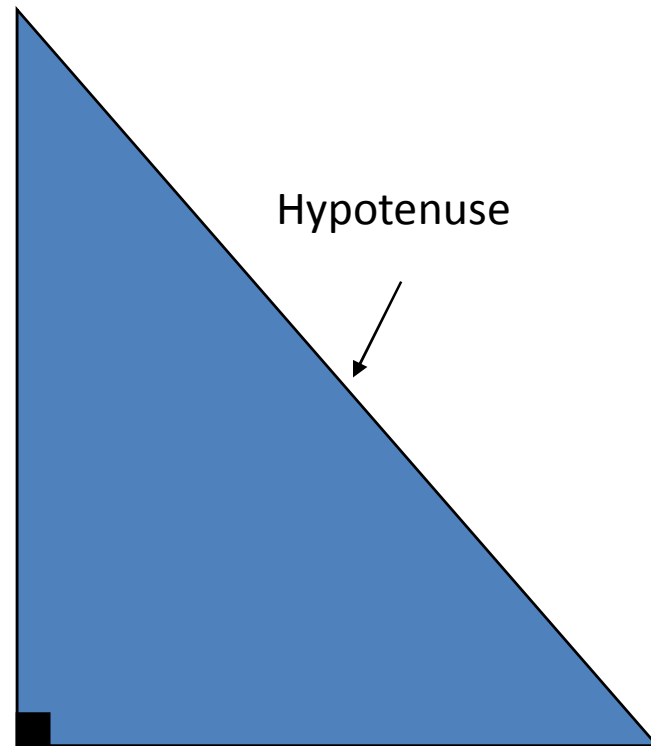
$$5^2 = 3^2 + 4^2$$

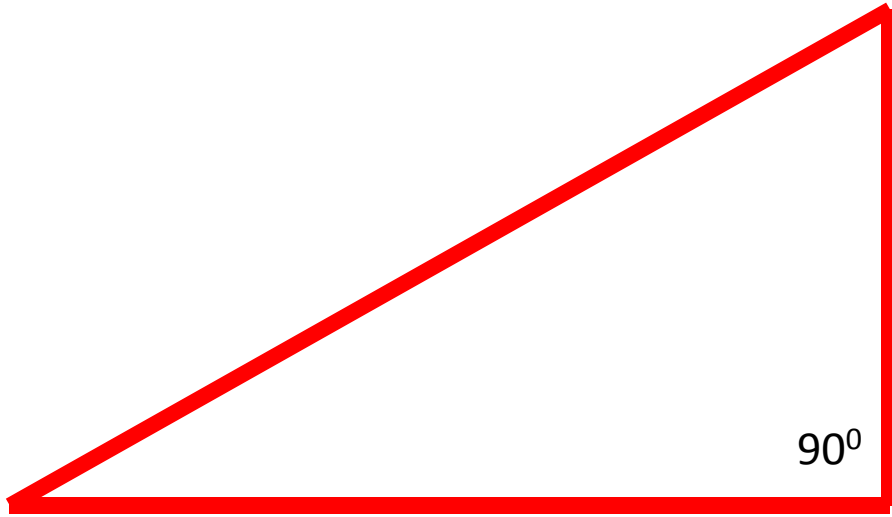
$$H^2 = x^2 + y^2$$

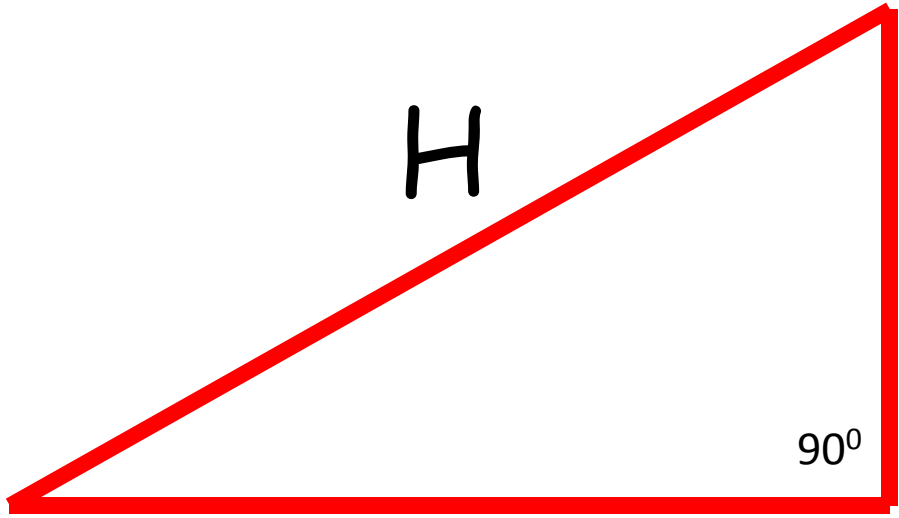
Where H = the Hypotenuse  
x and y = the 2 smaller sides

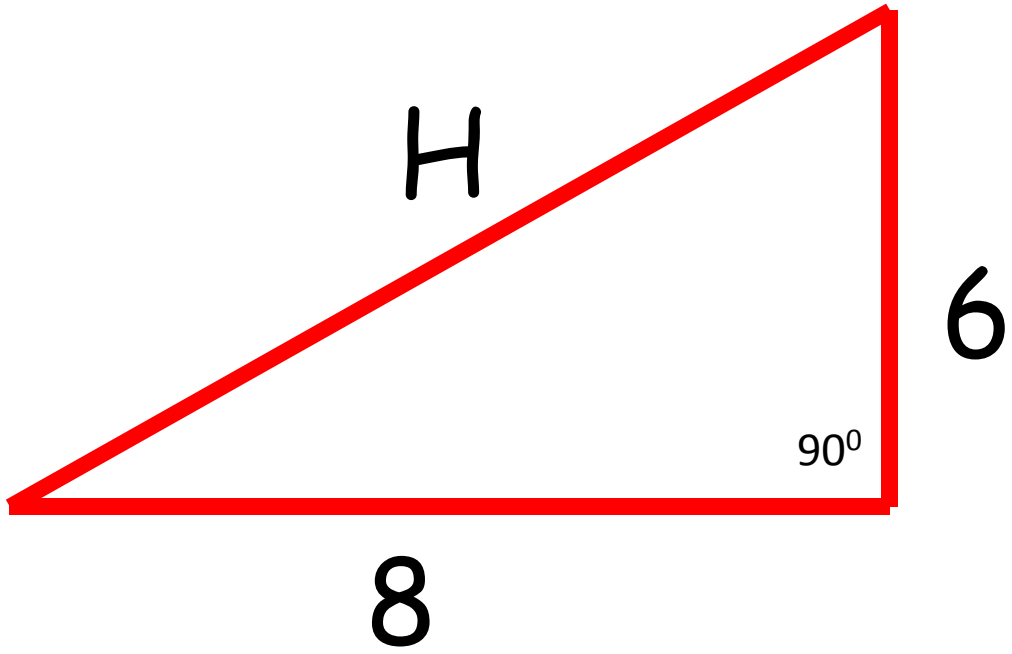
# Hypotenuse

- The longest side of a right angled triangle
- Always opposite the right angle

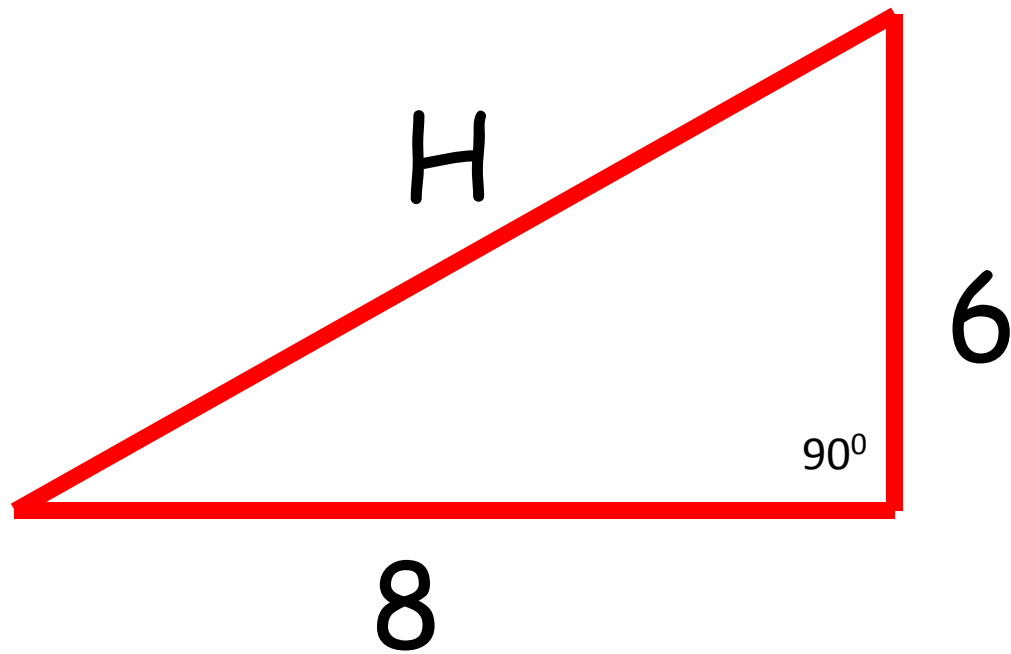






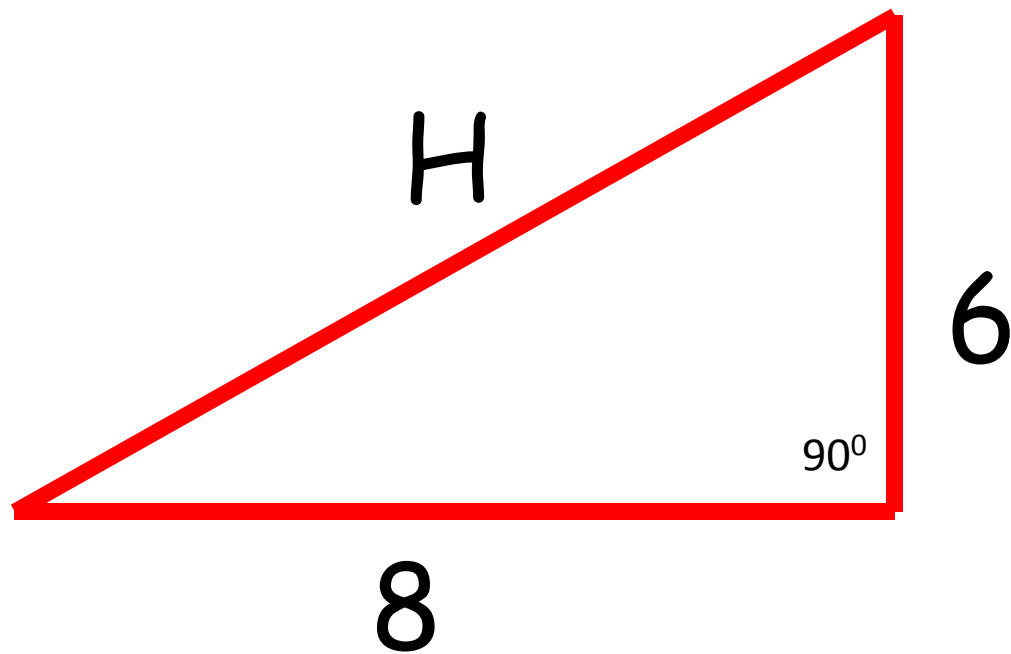






$$H^2 = x^2 + y^2$$

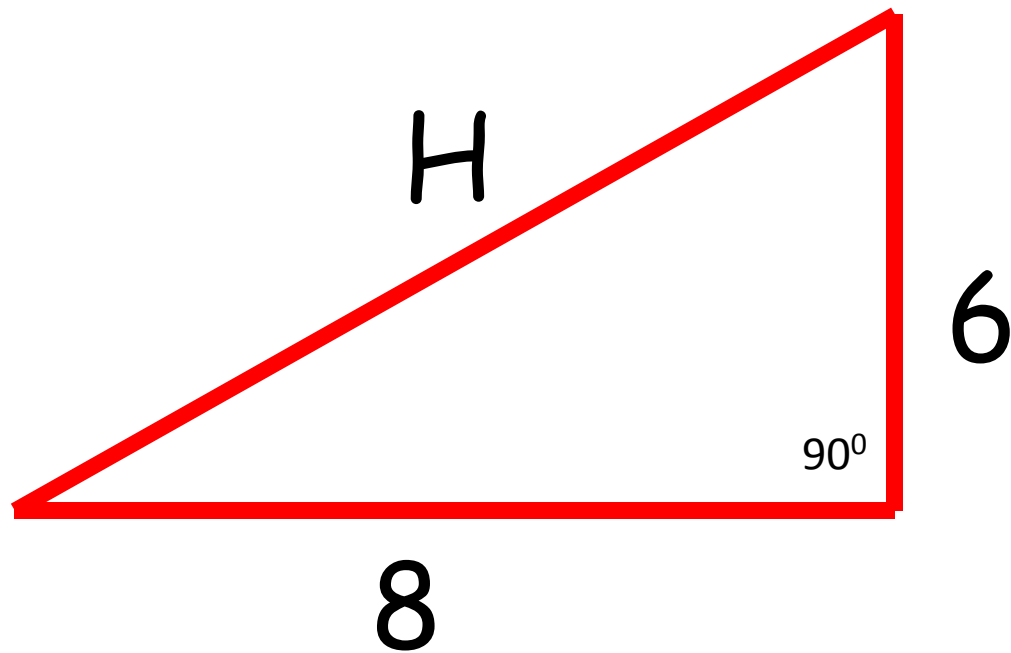
$$H^2 = 6^2 + 8^2$$



$$H^2 = x^2 + y^2$$

$$H^2 = 6^2 + 8^2$$

$$H^2 = 100$$



$$H^2 = x^2 + y^2$$

$$H^2 = 6^2 + 8^2$$

$$H^2 = 100$$

$$H = \sqrt{100} = 10$$