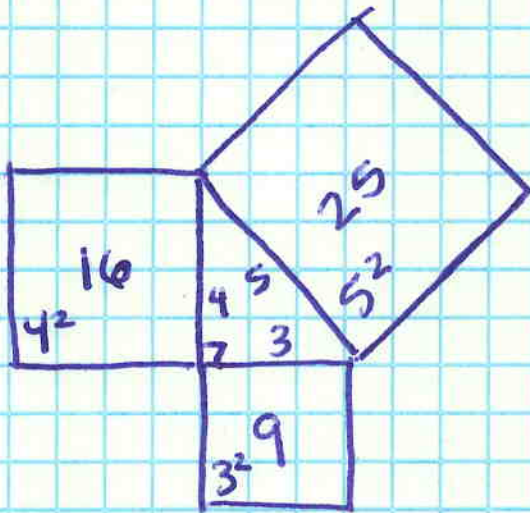


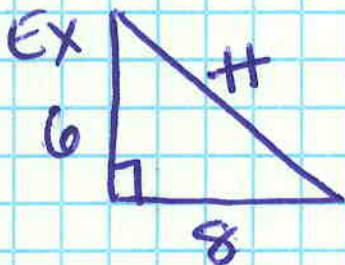
# 9.1-9.2 Pythagorean Theorem



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

↑            ↑            ↑  
 Small      Small      opposite the  
    right angle

$$\text{Leg}^2 + \text{Leg}^2 = \text{hyp}^2$$



find H

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

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

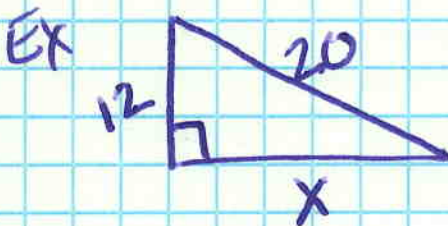
$$36 + 64 = H^2$$

$$100 = H^2$$

$$\sqrt{100} = \sqrt{H^2}$$

$$H = 10$$

← sides are squared  
to find the side,  
take the root



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

$$12^2 + x^2 = 20^2$$

$$144 + x^2 = 400$$

$$-144 \quad -144$$

$$x^2 = 256$$

$$x = \sqrt{256}$$

$$x = 16$$

HW: 481: 1-16