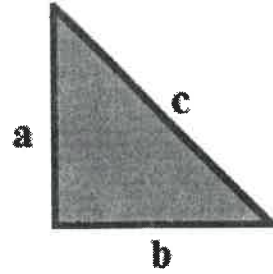


# Intro to Pythagorean Theorem NOTES

The Pythagorean Theorem:  $a^2 + b^2 = c^2$

- A. only works in RIGHT triangles.
- B. Sides a and b are called legs.
- C. Side c is called the hypotenuse.  
\*It is the longest side of the triangle.



**Proof:**

1. What is the area of the square based on side a if a = 3?

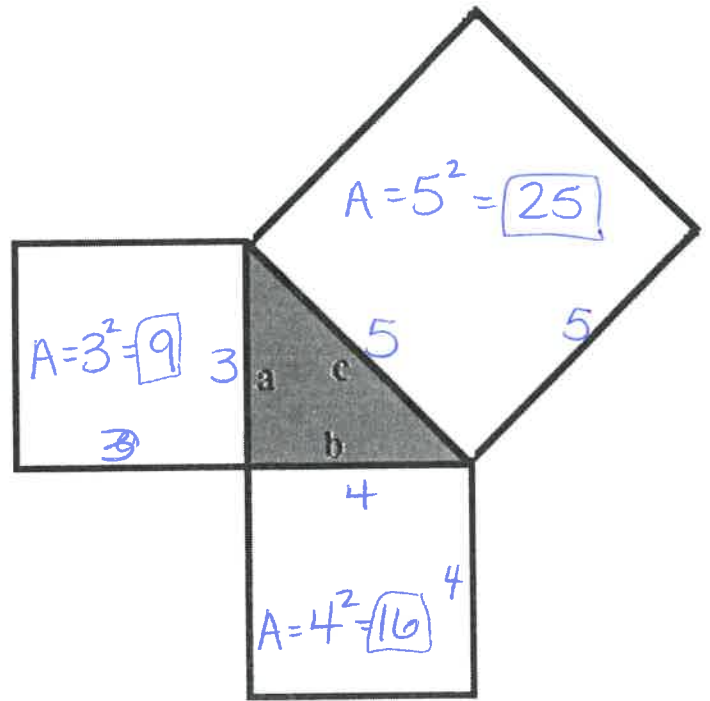
$A = 9$  sq. units

2. What is the area of the square based on side b if b = 4?

$A = 16$  sq. units

3. What is the area of the square based on side c if c = 5?

$A = 25$  sq. units



$9 + 16 = 25$   
 $\underbrace{\quad\quad\quad}_{\text{legs}^2} = \underbrace{\quad\quad\quad}_{\text{hyp.}^2}$

The **Pythagorean Theorem** is

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

