

## INTRODUCTION TO PYTHAGOREAN THEOREM

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Due Date: \_\_\_\_\_

Family Member Signature: \_\_\_\_\_

### Objective:

To understand the principle behind the Pythagorean Theorem.

### Necessary Information:

Pythagorean Theorem only works on a right-angled triangle. The theory states:

$$A_{\text{SMALLSQUARE}} + A_{\text{MEDIUMSQUARE}} = A_{\text{BIGSQUARE}}$$

### Practice Section:

1. Draw a triangle and label the hypotenuse.

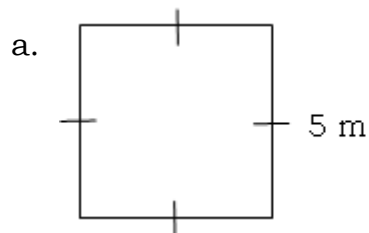
2. What are the three requirements of a hypotenuse?

1 -

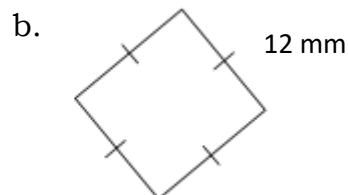
2 -

3 -

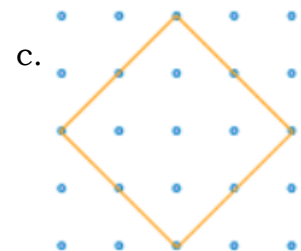
3. Find the area of the squares.



A = \_\_\_\_\_



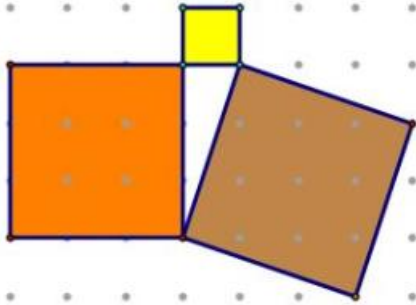
A = \_\_\_\_\_



A = \_\_\_\_\_

4. Find the unknown areas of all squares for each diagram.

a.

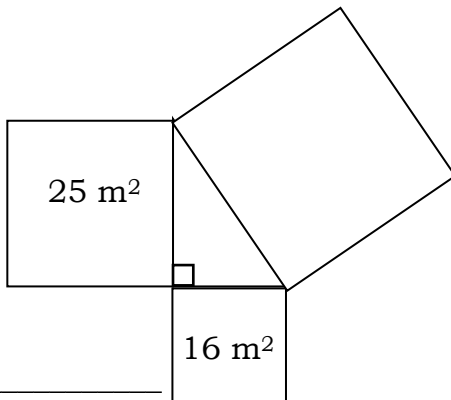


$A_{\text{small}} = \underline{\hspace{2cm}}$

$A_{\text{medium}} = \underline{\hspace{2cm}}$

$A_{\text{big}} = \underline{\hspace{2cm}}$

b.

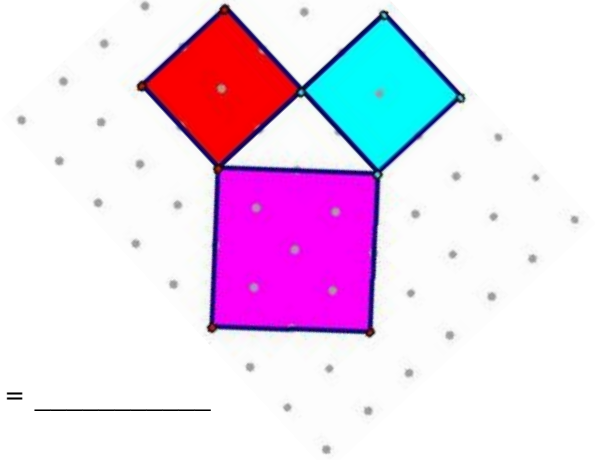


$A_{\text{small}} = \underline{\hspace{2cm}}$

$A_{\text{medium}} = \underline{\hspace{2cm}}$

$A_{\text{big}} = \underline{\hspace{2cm}}$

c.

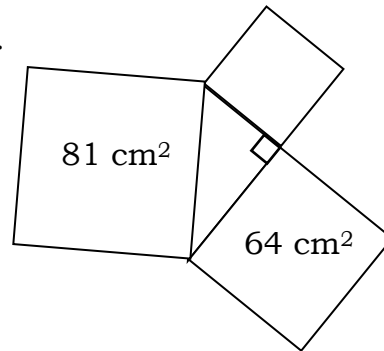


$A_{\text{small}} = \underline{\hspace{2cm}}$

$A_{\text{medium}} = \underline{\hspace{2cm}}$

$A_{\text{big}} = \underline{\hspace{2cm}}$

d.



$A_{\text{small}} = \underline{\hspace{2cm}}$

$A_{\text{medium}} = \underline{\hspace{2cm}}$

$A_{\text{big}} = \underline{\hspace{2cm}}$

**In Your Real World:**



iPad Pro 12.9-inch  
128GB Wi-Fi - ...

Electric screen sizes are determined by the diagonal of the screen. With a family member, measure the dimensions of an electric device with a screen and calculate the diagonal. What 'size' device do you have? What is it?