

## Activity: "26 Squares"

Learning Goal

### Getting Started

With the squares from your envelope...

i)

ii)

iii)

### Examples of 'Empty' Triangles

- Randomly pick out three and try to make a triangle.
- Do this several times and list your 'triplets' in the table, accordingly.

Triangle

Non-triangle

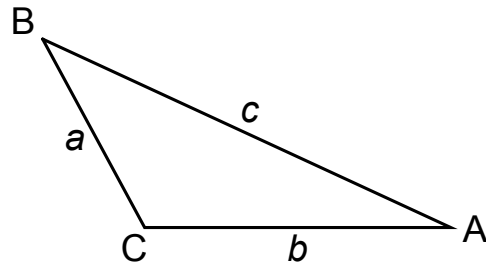
### Triangle Side Inequality

Based on your observations, what have you noticed about the side lengths required to make a triangle? Explain.

### Triangle Side Inequality

#### Key Idea:

To construct any triangle, ABC, using the squares you've been given ...



### Right Triangles

- Find 3 squares that make a right triangle.
- Find as many possible combinations as you can with the squares you've been given.
- Add your data to the class table and to your own (next slide).

### Right Triangles

side 1	side 2	side 3	(side 1) <sup>2</sup>	(side 2) <sup>2</sup>	(side 3) <sup>2</sup>


### Sum of the Squares

What do you notice about the squares of the sides?

$$\boxed{\text{(side 1)}^2} + \boxed{\text{(side 2)}^2} = \boxed{\text{(side 3)}^2}$$

Pull

### Sum of the Squares



### Problem

The length of one side of a right triangle is 10 cm. What might the lengths of the other two sides be?

### Activity: "26 Squares"

### Practice

[Practice\\_Pythagorean Theorem\\_p1.pdf](#)

[Practice\\_Pythagorean Theorem\\_p2.pdf](#)

Complete: #4, 3, 1ac, 2bd, 6

## Attachments

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Practice\_Pythagorean Theorem\_p1.pdf

Practice\_Pythagorean Theorem\_p2.pdf