

Name: _____

Date: _____

Lesson # 2 – Constructivist Approach Handout

Exploring Squares on the side of Triangles

NYC Standard(s): M2

NYS Key Idea(s): 5c

Group Work

Cut out squares from grid paper with side lengths ranging from 2 cm to 16 cm.

1. Choose 3 squares and put them together to form the sides of a triangle.
2. Construct the following table then record information about the triangle.
(Are there some sets of squares that will not form a triangle?)
3. Repeat this process for 6 triangles.

Side lengths (cm)			Area of square (cm ²)			Sum of the areas of smaller squares (cm ²)	Sum of the areas of smaller squares (cm ²)	Angle name of the triangle
Column 1			Column 2			Column 3	Column 4	Column 5
A	b	c	a ²	b ²	c ²	a ² + b ²	a ² + b ² ? c ² (>, <, =)	acute, right, obtuse
1								

Whole Class Sharing

Your group will be asked to share findings with the class
Add extra rows to your table to record data from other groups

Writing your summary

Write a sentence to describe the relationship between the sum of the areas of smaller and middle size squares compared to the area of the largest square for:

- An acute triangle
- A right triangle
- An obtuse triangle

