**Exploring the Pythagorean Relationships**

1. Is the triangle a right triangle? How do you know?
2. Write an addition statement showing the relationship between the areas of the three squares.
3. Describe in words the relationship between the side lengths of the triangle.

Activity:

1. With a partner, cut out 3 squares on the graph paper with the following dimensions: 6**cm x 6cm, 8cm x 8cm, 10cmx 10cm**
2. Arrange the squares to form Triangle 1 as shown:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Side** | **Side Length (cm)** | **Angle Opposite the Side (o)** | **Area of Square (cm2)****A = *l x w*** |
| **Triangle** | **a** | **6** | **37** |  |
| **b** | **8** |  |  |
| **c** | **10** |  |  |



1. Measure the angle opposite each side of Triangle 1 with a protractor.
2. In your table, record the angle measures to the nearest degree.
3. Complete the rest of the table for the Triangle