Exploring the Pythagorean Theorem With G.S.P.

Use the Geometer’s Sketchpad drawing to complete the table below for at least 6 different triangles (2 acute, 2 right, and 2 obtuse). Follow these steps to make a new triangle then record your results in the table:

1. Move *A, B,* or *C* to make a new triangle with ***c* as the longest side length.**
2. Record the type of triangle and the value of and in the table below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of Triangle** *Classify by Angles* |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

|  |
| --- |
| **Converse of the Pythagorean Theorem:**  Assume that are the three sides of a triangle and *c* is the largest side.If \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , then the triangle is a right triangle    If \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , then the triangle is an acute triangle.   If \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , then the triangle is an obtuse triangle. |

**Try These**

Decide if the following sides make a right triangle, acute triangle, or an obtuse triangle.

1. 15, 8, 17
2. 12, 6, 7
3. 9, 7, 10
4. 11, 60, 61