**H. Geometry Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Hour: \_\_\_\_\_**

**Topic 7 Summary - Properties of a Triangle**

You have explored many relationships found in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. You have either proven or prepared yourself to prove the following theorems related to triangles:

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: The \_\_\_\_\_ of the lengths of any two sides of a triangle is \_\_\_\_\_\_\_\_\_\_ than the length of the third side.

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: The \_\_\_\_\_ of the measure of the interior angles of a triangle is \_\_\_\_\_.

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: The \_\_\_\_\_\_\_\_\_\_ of an exterior angle of a triangle is equal to the \_\_\_\_\_ of the measures of the remote interior angles.



All these theorems will be important as you continue your study of geometry.

You also discovered relationships in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, including right triangles and isosceles triangles. You proved the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: The \_\_\_\_\_ angles of a triangle are complementary.



The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ relationships you conjectured about are also theorems. You will prove them in a later topic.

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: The \_\_\_\_\_ angles of an isosceles triangle are \_\_\_\_\_\_\_\_\_\_.

* The \_\_\_\_\_\_\_\_\_\_ from the vertex to the \_\_\_\_\_\_\_\_\_\_ of the base of an isosceles triangle is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the base and \_\_\_\_\_\_\_\_\_\_ the vertex angle.
* The \_\_\_\_\_\_\_\_\_\_ from the vertex to the \_\_\_\_\_\_\_\_\_\_ of the base of an isosceles triangle \_\_\_\_\_\_\_\_\_\_ the isosceles triangle into two \_\_\_\_\_\_\_\_\_\_ triangles.

