**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**M8-U2: Notes #5 – Similarity (proportionality) Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Example 1:** **Congruent Figures**

**a.** Two triangles that are congruent have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 \_\_\_\_\_\_  \_\_\_\_\_\_

 \_\_\_\_\_\_  \_\_\_\_\_\_ 

 \_\_\_\_\_\_  \_\_\_\_\_\_

 Therefore: 

**Example 2: Similar Figures**

**a.** Two triangles that are similar have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 **AND**

**b.** Corresponding sides are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.





 \_\_\_\_\_\_

 \_\_\_\_\_\_ 

 \_\_\_\_\_\_

  

**Example 3: Finding missing lengths**

Given that rectangle *EFGH* is similar to rectangle *WXYZ*, find *t*.

**Try It!:**

**a)** In the figure, . Find *LM*.



**Example 4:** **Overlapping Similar Triangles**

The following figures are similar polygons. Find the unknown lengths.



**Try It!:**

The following figures are similar polygons. Find the unknown lengths.



**Example 5:** **Determining Similarity using Proportions**

Tell whether the pair of polygons is similar. Explain why or why not.

