Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Triangle Congruence**

When two triangles are congruent, there are 6 facts that are true about the triangles:

* the triangles have 3 sets of congruent (of equal length) sides *and*
* the triangles have 3 sets of congruent (of equal measure) angles.

Fortunately, when we need to PROVE (or show) that triangles are congruent, we do NOT need to show all six facts are true.  There are certain combinations of the facts that are sufficient to prove that triangles are congruent.  These combinations of facts guarantee that if a triangle can be drawn with this information, it will take on only one shape.  Only one unique triangle can be created, thus guaranteeing that triangles created with this method are congruent.

**Methods for proving (justifying) that triangles are congruent**

















