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

**How to Prove Triangle CongruenceNot-so-obvious congruence you can use:**

*If some angles or sides are unmarked, you can use these to mark them as congruent.*

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ EX:**
2. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ EX:**

**(only with parallel lines)**

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ EX:**

**(shared side)**

**Triangle Congruence Postulates**

1. **Side-Side-Side (SSS)**

If 3 \_\_\_\_\_\_\_\_\_\_\_ of a triangle are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to 3 \_\_\_\_\_\_\_\_\_\_\_\_ of another triangle, then the two triangles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Draw me:



Example:

*Prove ∆DEF ≅ ∆GHI*



1. **Side-Angle-Side (SAS)**

If 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a triangle are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of another triangle, then the two triangles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Draw me:

Example:

*Prove ∆ABD ≅ ∆ADC*

1. **Angle-Side-Angle (ASA)**

If 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a triangle are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of another triangle, then the two triangles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Draw me:



Example:

*Prove ∆ADE ≅ ∆CBE*

1. **Angle-Angle-Side (AAS)**

If 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a triangle are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of another triangle, then the two triangles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Draw me:



Example:

*Prove ∆ABC ≅ ∆BCD*

1. **Hypotenuse-Leg:**

*Two ­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are congruent if they each have a congruent \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and a congruent \_\_\_\_\_\_\_\_\_\_.*

Draw me:

1. **Angle-Side-Side:**

*Don’t be one! This is NOT a method of proving triangle congruence!* ☺

Example: