**Congruent Triangles—AAS, HL**

Remember

**Angle-Angle-Side (AAS) Congruence**—If two angles and a non-included side of one triangle are congruent to two angles and a non-included side of another triangle, then the two triangles are congruent.

**Hypotenuse-Leg (HL) Congruence**—If the hypotenuse and a leg of one right triangle are congruent to the hypotenuse and a leg of another right triangle, then the two triangles are congruent.

In a right triangle, the sides that form the right angle are **legs**. The side opposite the right angle is the **hypotenuse**.

Determine which methods if any can prove the triangles are congruent. There may be more than one answer. Shade in the matching column letters. Copy the letters onto the blanks to reveal the riddle answer.

1. 

2. 

3. 

4. 

5. 

6. 

7. 

8. 

9. 

10. 

11. 

12. 

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**Congruent Triangles—SSS, SAS, ASA**

Remember

Two figures are congruent if they are the same shape and size. The two figures have corresponding sides and corresponding angles that are congruent.

**Side-Side-Side (SSS) Congruence**—If three sides of one triangle are congruent to three sides of another triangle, then the triangles are congruent.

**Side-Angle-Side (SAS) Congruence**—If two sides and the included angle of one triangle are congruent to two sides and the included angle of another triangle, then the triangles are congruent.

**Angle-Side-Angle (ASA) Congruence**—If two angles and the included side of one triangle are congruent to two angles and the included side of another triangle, then the triangles are congruent.

Determine which method if any can prove the triangles are congruent. Shade in the matching column letters and copy them onto the blanks to reveal a message.

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How many geometry teachers does it take to change a light bulb?

_______, THEY ______, DO IT.

THEY CAN ONLY _______ CAN DONE!