

Date:

Title:

(A) **Lesson Objectives:**

- a. Review the Triangle congruence postulates → SSS, SAS, ASA
- b. Introduce the SAA and HL triangle congruence postulates
- c. Determine whether or not 2 triangles are congruent

(B) **Congruent Triangles** → we have several ways that we can PROVE that two triangles are congruent:

- a. **Side-side-side (SSS)** → If 3 sides of one triangle are congruent to the corresponding sides of another triangle, then the 2 triangles are congruent
- b. **Side-angle-side (SAS)** → If 2 sides and an included angle of one triangle are congruent to the corresponding sides and included angle of another triangle, then the 2 triangles are congruent
- c. **Angle-side-angle (ASA)** → If 2 angles and an included side of one triangle are congruent to the corresponding angles and included side of another triangle, then the 2 triangles are congruent
- d. **Side-angle-angle (SAA)** → If 2 angles and a non-included side of one triangle are congruent to the corresponding angles and non-included side of another triangle, then the 2 triangles are congruent.
- e. **Hypotenuse-Leg (HL)** → If the hypotenuse and a leg of a right triangle are congruent to the hypotenuse and a leg of another right triangle, then the 2 triangles are congruent.

There are several combinations that are NOT valid tests/proofs for congruence:

- a. SSA → Is NOT always a valid test for congruence → i.e.
- b. AAA → is NOT always a valid test for congruence → i.e

(C) **In class Examples** → We will work through the following textbook pages: HOLT Geometry, chap 4.2, p 231, Q6-8,10-39

(D) **In class Examples** → We will work through the following worksheets:

(1) <http://www.kutasoftware.com/FreeWorksheets/GeoWorksheets/4-SSS,%20SAS,%20ASA,%20and%20AAS%20Congruence.pdf>

(2) <http://www.kutasoftware.com/FreeWorksheets/GeoWorksheets/4-Right%20Triangle%20Congruence.pdf>

(E) Video Links for Help

- a) <http://www.youtube.com/watch?v=CUKDzC5f6B4&feature=relmfu>
- b) <http://www.youtube.com/watch?v=NAhcmPS5k9g&feature=fvwrel>
- c) <http://www.youtube.com/watch?v=5ZNAQ5Enx8I&feature=relmfu>
- d) <http://www.youtube.com/watch?v=pZZADeU3khw&feature=related>