Congruent Triangles 2 – What is Necessary for ≅ Triangles 4.02

What is the minimum information needed to make two triangles congruent, thus two triangles that are the same size and same shape? Use the Dynamic Activity 4-2 and Illuminations activity http://illuminations.nctm.org/Activity.aspx?id=3504 to help determine if the given information will form congruent triangles.

Dynamic Activity 4-2- Will this information form congruent triangles???

1. Given: two sides(SS)

2. Given: three sides(SSS)

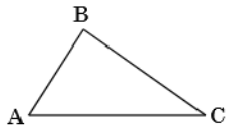
3. Given: a side and an angle(SA)

4. Given: two sides and an included angle (SAS)

5. Given: two angles (AA)

Illuminations Activity Will this information form congruent triangles???

6. Given: ∠A , ∠C , ∠B (AAA) three angles



7. Given: AB, ∠A , AC (SAS) two angles and an included side

8. Given: ∠A, AC, ∠C (ASA) two angles and included side

9. Given: BC, AB, ∠C (SSA) : two sides and angle not between the two sides

10. Given: ∠A, ∠C, BC (AAS) two angles and side not between the two angles

Now list all ways to prove
two triangles are congruent.