Worksheet 2

(Videos: "What is the SSS condition for congruence?", "What is the SAS condition for congruence?"

and "What is the ASA condition for congruence?")

https://www.youtube.com/watch?v=3wjLGV9ibII
https://www.youtube.com/watch?v=Ie3j2MDuuA0
https://www.youtube.com/watch?v=7PagcFtZB5g

- **Choose from the list (1−3) the right definition for the list (a−c):**

  1. Two triangles are congruent if two of their sides and the angles between them are respectively congruent.

  2. Two triangles are congruent if a side and its two adjacent angles are respectively congruent.

  3. If two triangles have all three sides respectively congruent, they are congruent.

  a. Side–Side–Side condition

  b. Side–Angle–Side condition

  c. Angle–Side–Angle condition

- **Complete the sentences:**

  1. The first condition to know _____ two triangles are _____ is called the _____ −S congruence _____, where S _____ for _____ .

  2. If three _____ of _____ triangle are _____ congruent _____ the _____ sides of another _____, the three triangles will _____ congruent.

  3. In SAS condition _____ congruence, angle must _____ included _____ the two _____ given.

  4. Two _____ are congruent if _____ sides and the _____ angle of one triangle are _____ congruent _____ the two _____ and the included _____ of _____ other _____.

  5. The SSA condition may or may _____ work, _____ it isn't a _____ condition.

  6. The ASA _____ says _____ if we _____ a triangle with _____ angles and _____ included side congruent to the two _____ and an _____ side _____ another triangle, then _____ two triangles will _____ congruent.

  7. The AAS condition is _____ the side is not _____ between _____ two _____; this condition also _____ work,

because it doesn't matter if _____ side _____ included or

_____ .

- **Answer these questions:**

   8. If we have two triangles, do we need to compare all six elements of each triangle to know if they're congruent? Why/why not?

   _____

   9. Is the AAA condition, where A stands for angle, a congruence one? Why/why not?

   _____