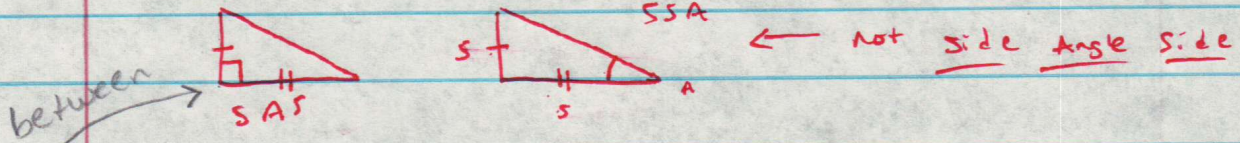


5.3 SAS Congruence. "side angle side"

S : side A : Angle

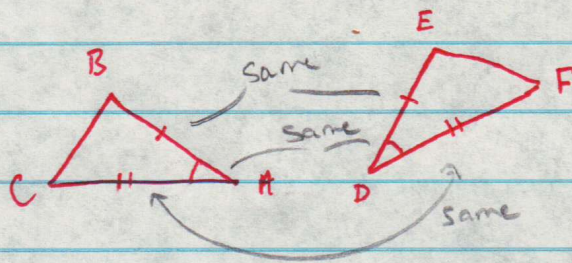


"side angle side" - means ... As you reach around the triangle, you see a side, then an angle, then another side, without skipping over any other sides or angles.

- Angle must be included, or between 2 sides.

You don't need to be given triangles with All sides and angles to know the triangles are congruent. If you know they have congruent SAS, the 2 triangles are congruent.

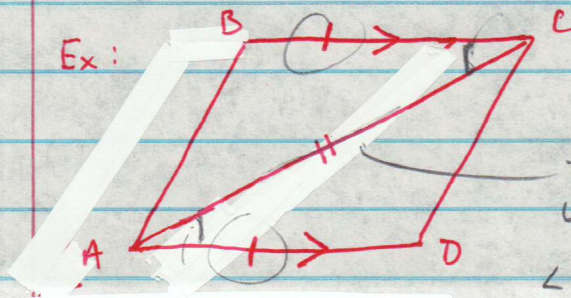
Ex: Are the 2 triangles congruent?



This is showing SAS congruence.

$$\text{so } \triangle ABC \cong \triangle DEF$$

Ex:

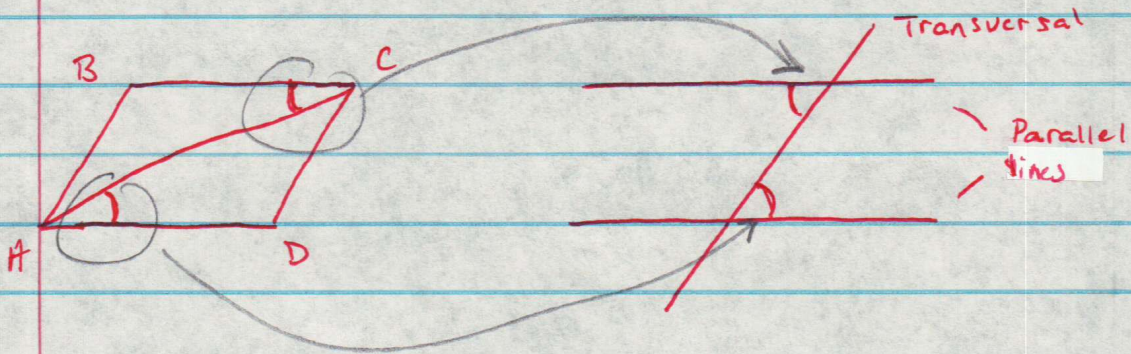


is $\triangle ABC \cong \triangle ADC$? Yes so they are equal.

This side is shared, it can be used as a congruent side.

$\angle ACB$ & $\angle CAD$ are Alternate Interior Angles.

you can see that $\angle BCA$ & $\angle CAD$ are Alternate Interior Angles more easily if I draw it like this



Alternate Interior Angles are congruent.

HW: Pg 225, 3-13