Day 2

Warm Up: Think-Pair-Share

What does it mean for two triangles to be congruent?

What things are important to remember when working with congruent triangles?

Let’s Play:
Guess What?
(Triangle Edition)

Question:

What information do we need before we can be sure we have congruent triangles? Is there more than one way to tell we have congruent triangles?

Reflection:

Examine the posters we made in our last class. Do they support the claims we just made?

Why or why not?

Triangle Congruences

#1. The three sides of the triangles are congruent. SSS

#2: Two sides and the angle between them are congruent for both triangles. SAS

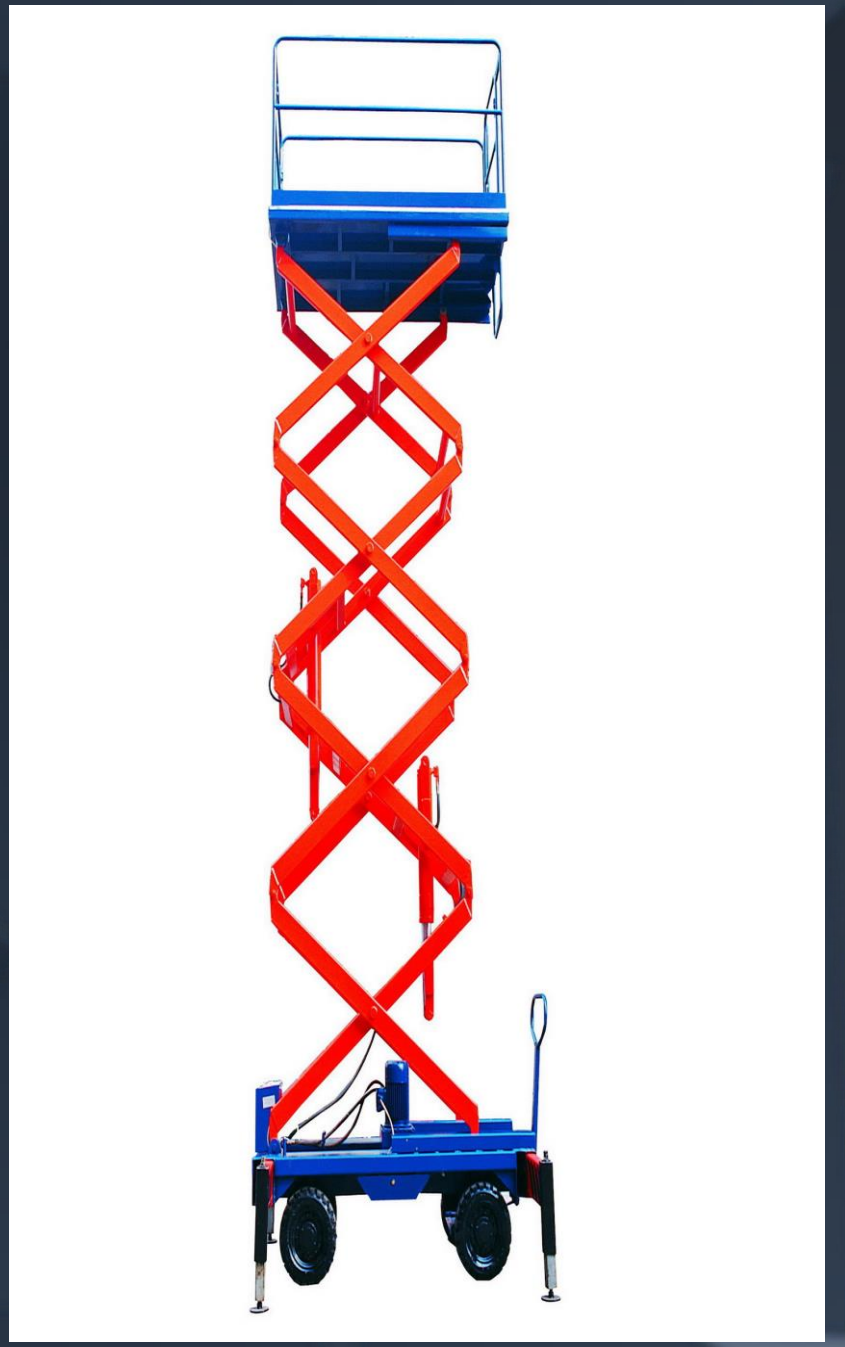
#3 Two angles and a side not between them are congruent for both triangles. AAS

#4: Two angles and the side between them are congruent for both triangles. ASA

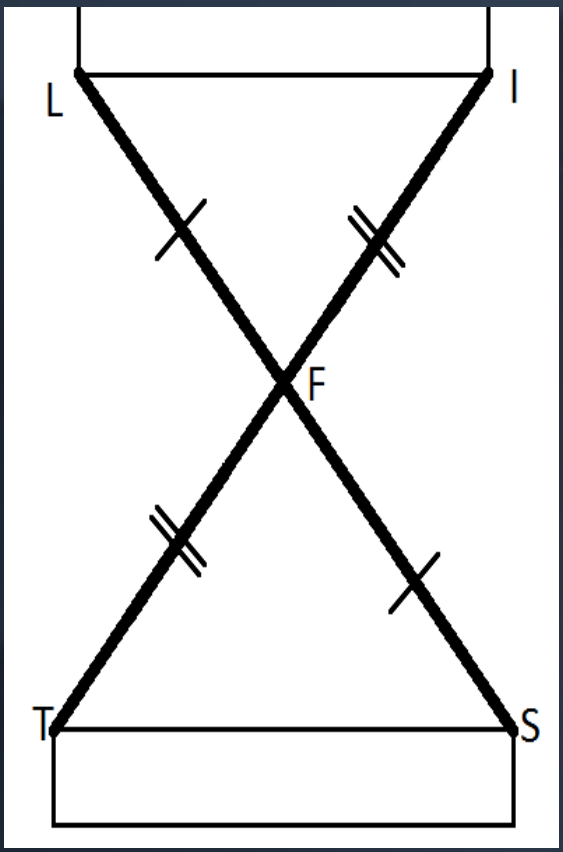
~~#5: All three angles for both triangles are congruent.~~

~~#6: Two sides and an angle NOT between them are congruent for both triangles.~~

So why do we care?



STATEMENT	REASON
1. F is the midpoint of LS and IT	
2. LF = FS and TF = FI	
3. $\overline{LF} \cong \overline{FS}$ and $\overline{TF} \cong \overline{FI}$	
4. $\angle LFI \cong \angle SFT$	
5. $\triangle LFI \cong \triangle SFT$	
6. $\angle ILF \cong \angle TSF$	
7. $\overline{LI} \parallel \overline{ST}$	



Definition of Congruent Segments

Vertical Angles are Congruent

Definition of Midpoint

Given

Side Angle Side Triangle Congruence Theorem

Corresponding Parts of Congruent Triangles are Congruent.

If Alternate Interior Angles are congruent, then the lines are parallel.