Week Nov 18-22 CP Geometry Sections 3,5,6

Monday: **Draw on paper** SAS and ASA configured triangles to demonstrate congruence theorems. --- Some in class are taking Friday's test.

Tuesday: **Online drawings** will show students AAS, AAA, SSS, and SSA configured triangles with 2 of those being not consistent as congruent triangles.

Wednesday: Work on Soft Practice Book **pg. 75, 79, and 81** problems together in class. Copy **pg 263 chart (on next slide)** from hard textbook into a summary sheet.

Thursday: Work on in class and finish for homework "Red practice book" **handout packet** of SAS, SSS, SSA(HL), ASA, and AAS - Mrs. Pletcher out of class.

Friday: Review handout and complete **online** sections listed below and finish for homework.

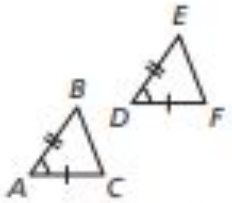
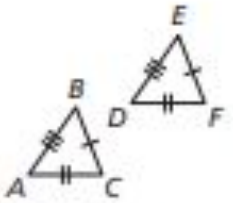
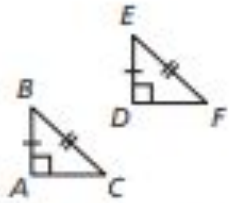
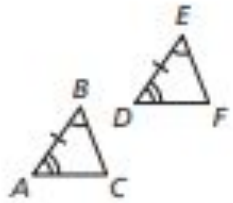
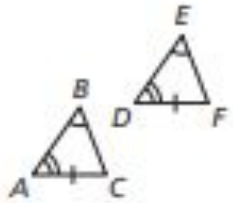
5.3 Practice # 1-12 **5.5 Practice #1-14** **5.6 Practice #1-8, 11-16**

Sections 3,5, & 6 Summary of proper configurations to prove Congruence of Triangles (Theorems)

CONCEPT SUMMARY

Triangle Congruence Theorems

You have learned five methods for proving that triangles are congruent.

SAS	SSS	HL (right △ only)	ASA	AAS
				
Two sides and the included angle are congruent.	All three sides are congruent.	The hypotenuse and one of the legs are congruent.	Two angles and the included side are congruent.	Two angles and a non-included side are congruent.

In the Exercises, you will prove three additional theorems about the congruence of right triangles: **H**ypotenuse-**A**ngle, **L**eg-**L**eg, and **A**ngle-**L**eg.

Week's Objectives/Learning Targets with sample example

Section 5.3: Proving Triangle Congruence by SAS

Common Core State Standards: G.CO.B.8
Learning Target: Prove and use the Side-Angle-Side Congruence Theorem.
Success Criteria

- Use rigid motions to prove the SAS Congruence Theorem.
- Use the SAS Congruence Theorem.

EXAMPLE 3 Using the AAS Congruence Theorem

GO DIGITAL

WATCH

Write a proof.

Given $\overline{HF} \parallel \overline{GK}$, $\angle F$ and $\angle K$ are right angles.

Prove $\triangle HFG = \triangle GKH$

SOLUTION

STATEMENTS	REASONS
1. $\overline{HF} \parallel \overline{GK}$	1. Given
A 2. $\angle GHF = \angle HGK$	2. Alternate Interior Angles Theorem
3. $\angle F$ and $\angle K$ are right angles.	3. Given
A 4. $\angle F = \angle K$	4. Right Angles Congruence Theorem
S 5. $\overline{HG} = \overline{GH}$	5. Reflexive Property of Segment Congruence
6. $\triangle HFG = \triangle GKH$	6. AAS Congruence Theorem

Section 5.5: Proving Triangle Congruence by SSS

Common Core State Standards: G.CO.B.8
Learning Target: Prove and use the Side-Side-Side Congruence Theorem.
Success Criteria

- Use rigid motions to prove the SSS Congruence Theorem.
- Use the SSS Congruence Theorem.
- Use the Hypotenuse-Leg Congruence Theorem.

Section 5.6: Proving Triangle Congruence by ASA and AAS

Common Core State Standards: G.CO.B.8
Learning Target: Prove and use the Angle-Side-Angle Congruence Theorem and the Angle-Angle-Side Congruence Theorem.
Success Criteria

- Use rigid motions to prove the ASA Congruence Theorem.
- Prove the AAS Congruence Theorem.
- Use the ASA and AAS Congruence Theorems.