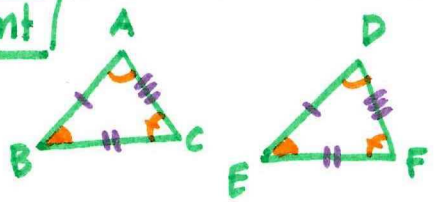
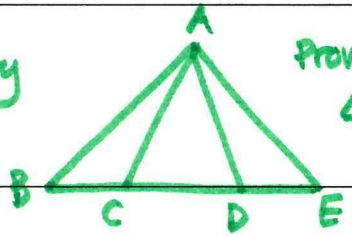
Section 4.2 Date

APPLY CONGRUENCE AND TRIANGLES

Vocabulary	Definition	Example
CONGRUENT FIGURES	In two congruent figures, all the parts of one figure are congruent to the corresponding parts of the other figure. ↳ same position	Congruence Statement $\triangle ABC \cong \triangle DEF$ 
CORRESPONDING PARTS	△s have ↳ corresponding parts In congruent polygons, the corresponding parts are the corresponding sides and the corresponding angles. ↳ 3 sides ↳ 3 angles *(corresponding- occupies the same position)	Sides: $\overline{AB} \cong \overline{DE}$, $\overline{BC} \cong \overline{EF}$, $\overline{AC} \cong \overline{DF}$ Angles: $\angle A \cong \angle D$, $\angle B \cong \angle E$, $\angle C \cong \angle F$ * you must show that ALL corresponding parts (sides and angles) are $\cong$ to prove that polygons are $\cong$.
THIRD ANGLES THEOREM 3rd ∠s Thm.	If two angles of one triangle are congruent to two angles of another triangle, then the third angles are also congruent.	 $\angle A \cong \angle D$ and $\angle B \cong \angle E$ $\angle C \cong \angle F$ by 3rd ∠s Thm.
PROPERTIES of CONGRUENT TRIANGLES	**Reflexive Property**: For any triangle ABC, $\triangle ABC \cong \triangle ABC$.	common scenario for the reflexive property  Prove: $\triangle ABD \cong \triangle AEC$
	Symmetric Property: If $\triangle ABC \cong \triangle DEF$, then $\triangle DEF \cong \triangle ABC$.	$\triangle ACD \cong \triangle ACD$ Reflexive
	Transitive Property: If $\triangle ABC \cong \triangle DEF$ and $\triangle DEF \cong \triangle JKL$, then $\triangle ABC \cong \triangle JKL$.	