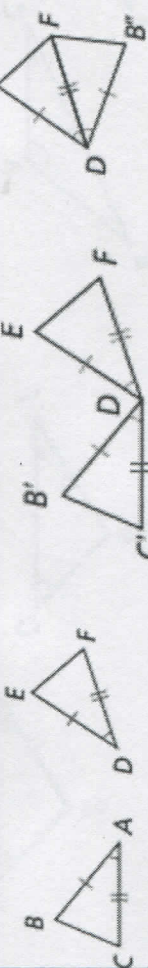
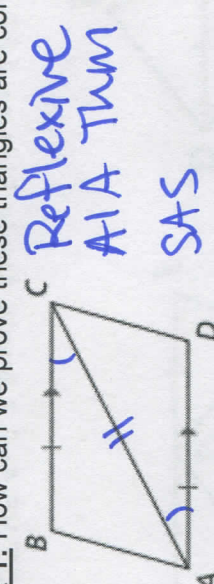


OBJECTIVE 1: 5.3 Side Angle Side or SAS



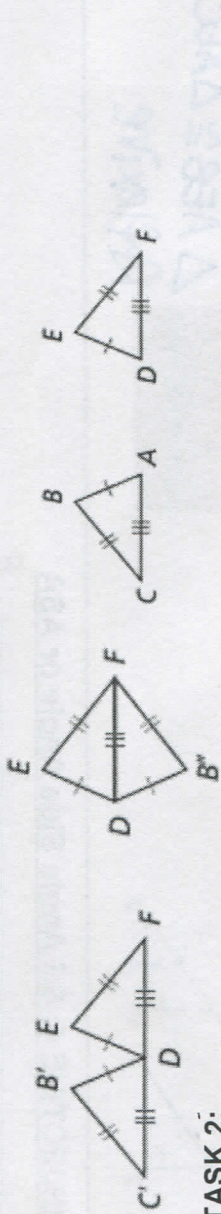
TASK 1: How can we prove these triangles are congruent by SAS?

Vertical \angle 's
 Def of radius
 Def of Isosceles \triangle
 SAS



Reflexive
 AIA Thm
 SAS

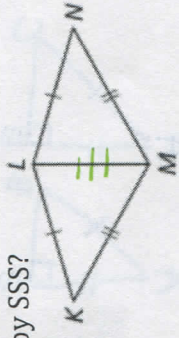
OBJECTIVE 2: 5.5 Side Side Side or SSS



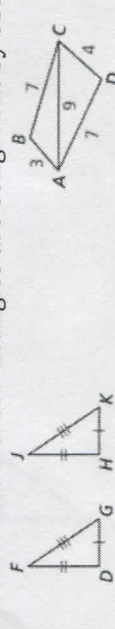
TASK 2:

a) What do we need to prove the triangles to the right congruent by SSS?

Reflexive, SSS
 $\triangle KLM \cong \triangle NLM$



b) Determine if these triangles are congruent by SSS.



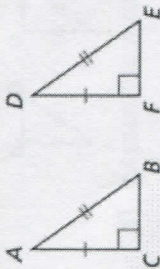
$\triangle FGD \cong \triangle JKH$



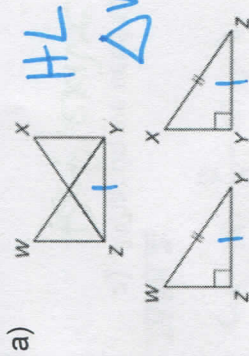
$\triangle POT \cong \triangle SRT$

NO

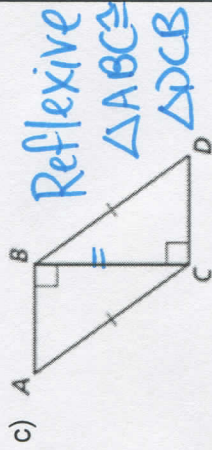
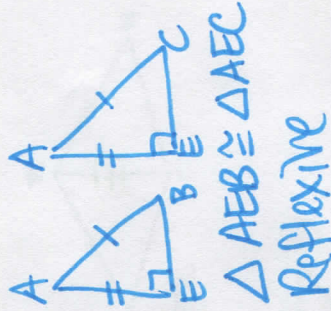
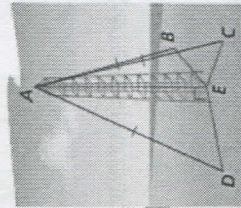
OBJECTIVE 3: 5.5 Hypotenuse Leg or HL



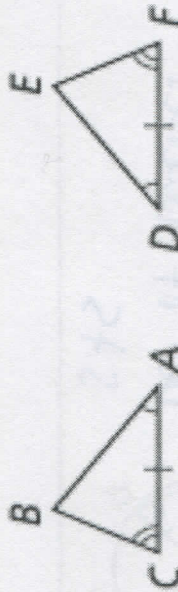
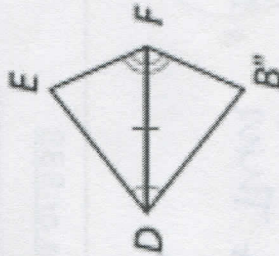
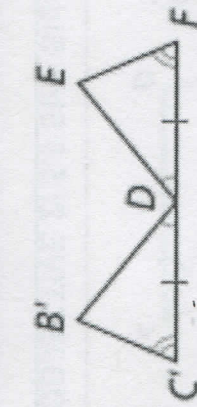
TASK 3: Determine if these triangles are congruent by HL.



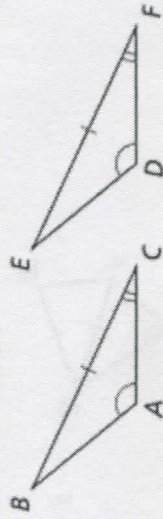
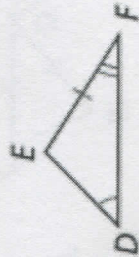
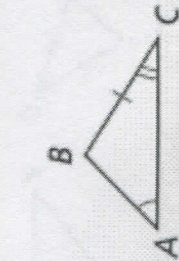
HL
 $\triangle WYZ \cong \triangle W'Z'Y'$



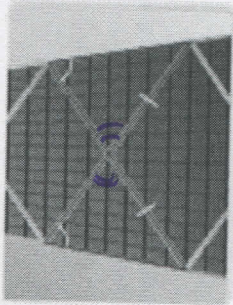
OBJECTIVE 4: 5.6 Angle Side Angle or ASA



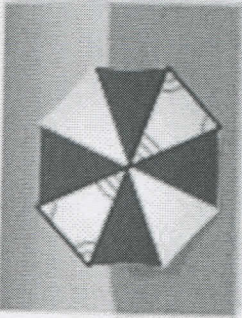
OBJECTIVE 5: 5.6 Angle Angle Side or AAS



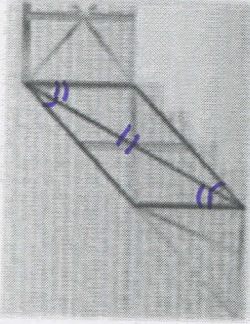
TASK 4 & 5: Can we prove these triangles congruent by ASA or AAS? If yes, which one.



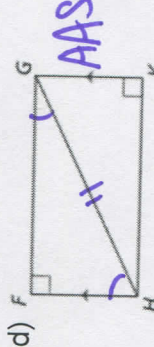
a) **vertical \angle**
AAS



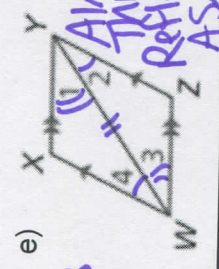
b) **NO**
AAAX



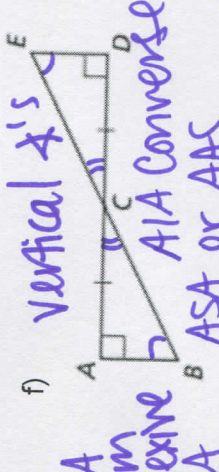
c) **AIA given**
Reflexive
ASA



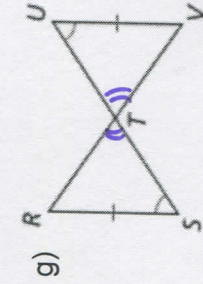
d) **AAS**
Reflexive, AIA Thm



e) **AIA Thm**
Reflexive
ASA



f) **vertical \angle 's**
AIA Converse
ASA or AAS



g) **Vertical \angle 's**
AAS

Triangle Congruence Theorems

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

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

In the Exercises, you will prove three additional theorems about the congruence of right triangles: Hypotenuse-Angle, Leg-Leg, and Angle-Leg.

Still need help with: