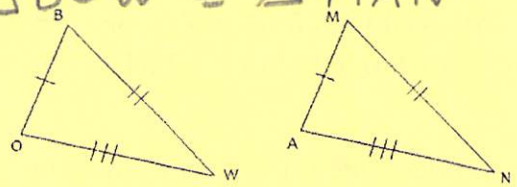
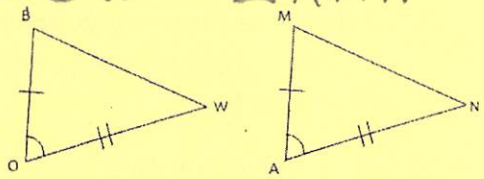
5 Ways to Prove Triangles are Congruent

$\triangle BOW \cong \triangle MAN$



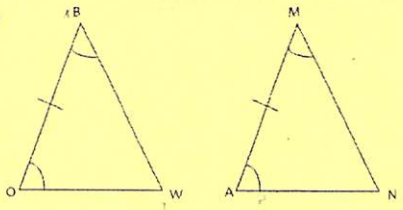
SSS

$\triangle OBW \cong \triangle AMN$

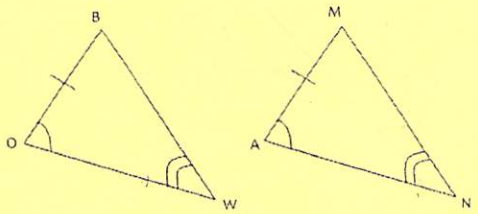


SAS

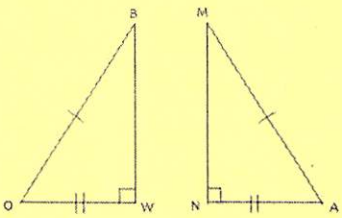
$\triangle WBO \cong \triangle NMA$



ASA



AAS



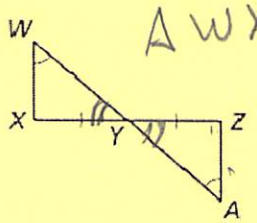
HL

(1) Vertical ∠'s
(2) Reflexive Prop.
(3) Linear Pair ✓

Practice

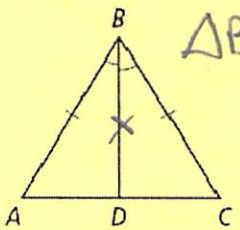
Choose which postulate can be used to prove the triangles congruent:

1) $\triangle WXY \cong \triangle AZY$



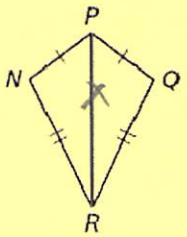
AAS

2) $\triangle BAD \cong \triangle BCD$



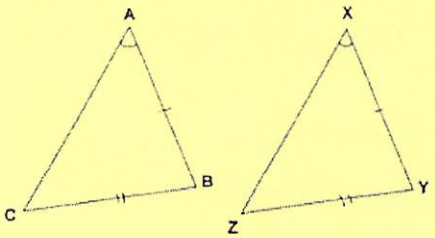
SAS

3)



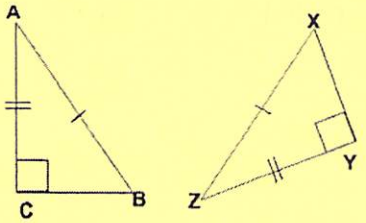
SSS

4)



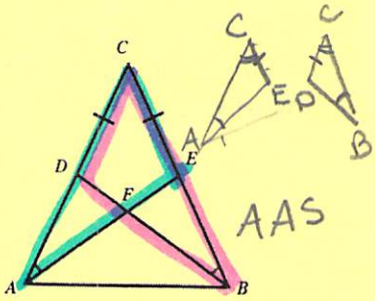
NMI

5)



HL

6)



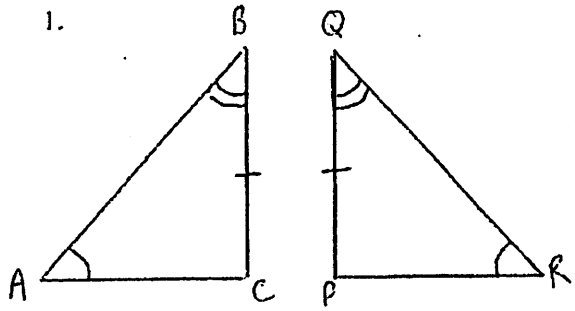
AAS

Congruent Triangles Theorems Practice Name _____

Are these triangles congruent???

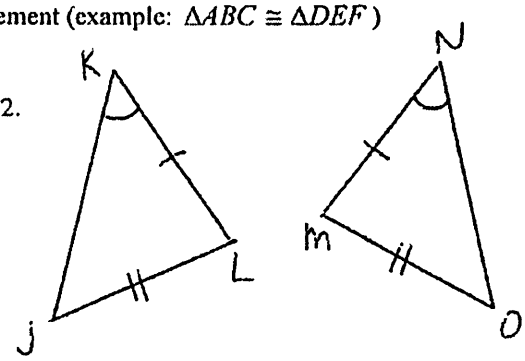
1. Is there enough information to prove that two triangles are congruent?
2. If so, what postulate/theorem would you use: (1) S-S-S, (2) S-A-S, (3) A-S-A, (4) A-A-S
3. If two triangles are congruent, write a congruence statement (example: $\Delta ABC \cong \Delta DEF$)

1.



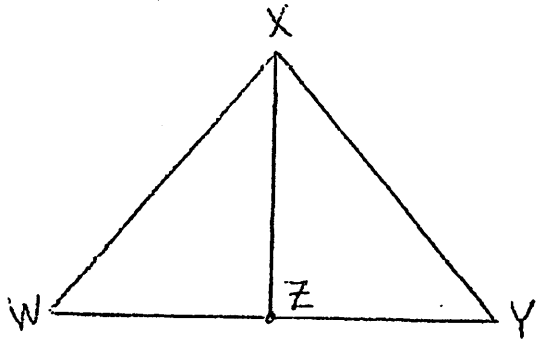
Congruent? (Y/N) _____
Why? _____
Statement: Δ_____ ≅ Δ_____

2.



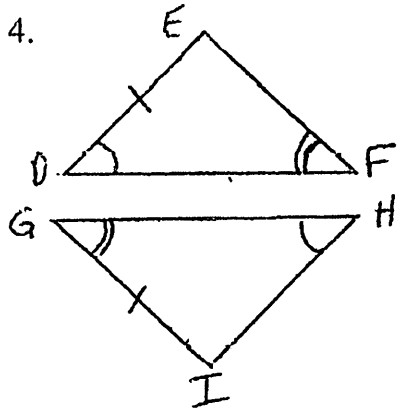
Congruent? (Y/N) _____
Why? _____
Statement: _____

3. Given: $\overline{XZ} \perp \overline{WY}$; $\overline{XZ}$ bisects $\angle WXY$



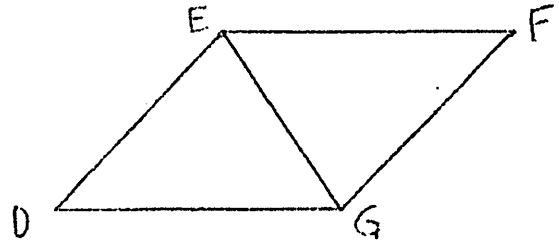
Congruent? (Y/N) _____
Why? _____
Statement: _____

4.



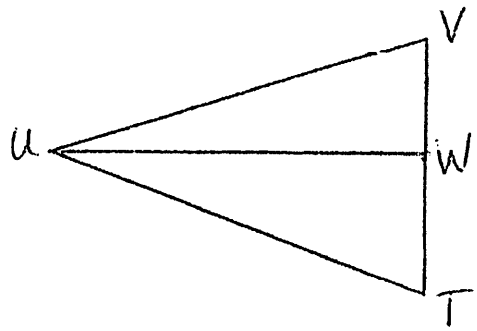
Congruent? (Y/N) _____
Why? _____
Statement: _____

5. Given: $\overline{DG} \parallel \overline{EF}$ $\overline{DE} \parallel \overline{FG}$



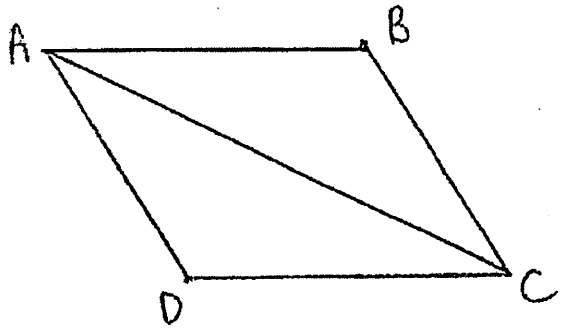
Congruent? (Y/N) _____
Why? _____
Statement: _____

6. Given: $\overline{TU} \cong \overline{UV}$; $\overline{UW}$ bisects $\angle TUV$



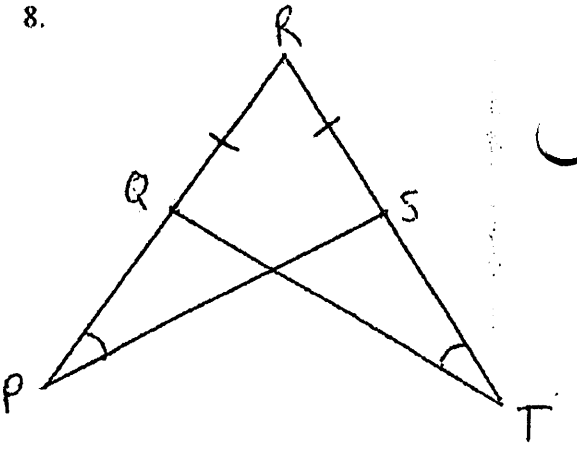
Congruent? (Y/N) _____
Why? _____
Statement: _____

7. Given: ABCD is an equilateral quadrilateral



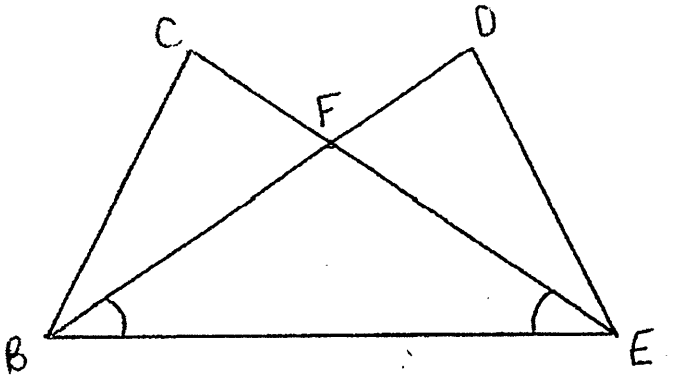
Congruent? (Y/N) _____
Why? _____
Statement: _____

8.



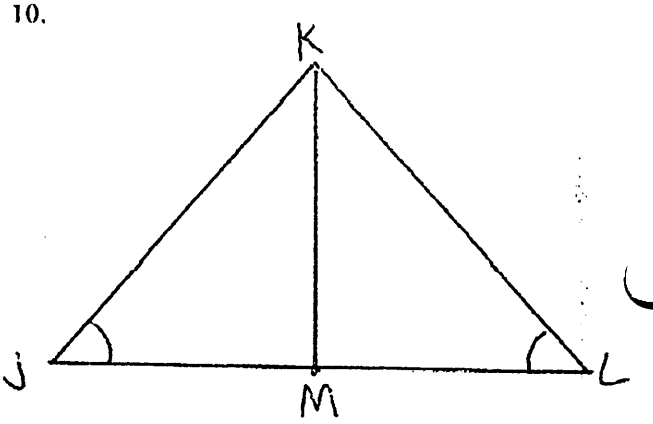
Congruent? (Y/N) _____
Why? _____
Statement: _____

9. Given: $\overline{BD} \cong \overline{CE}$



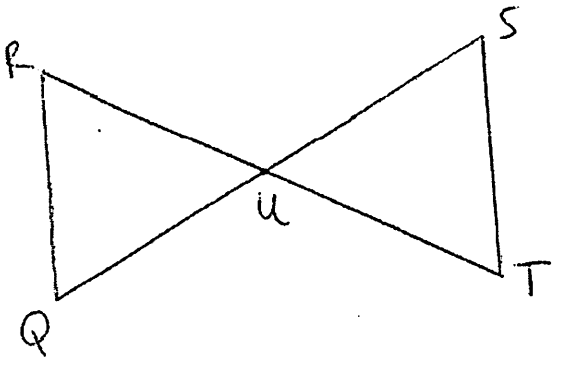
Congruent? (Y/N) _____
Why? _____
Statement: _____

10.



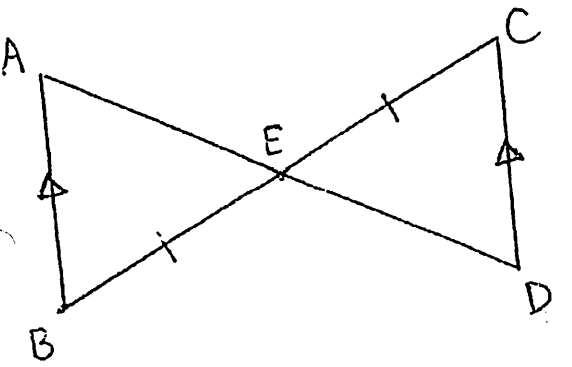
Congruent? (Y/N) _____
Why? _____
Statement: _____

11. $\angle Q \cong \angle S; \angle R \cong \angle T$



Congruent? (Y/N) _____
Why? _____
Statement: _____

12.



Congruent? (Y/N) _____
Why? _____
Statement: _____