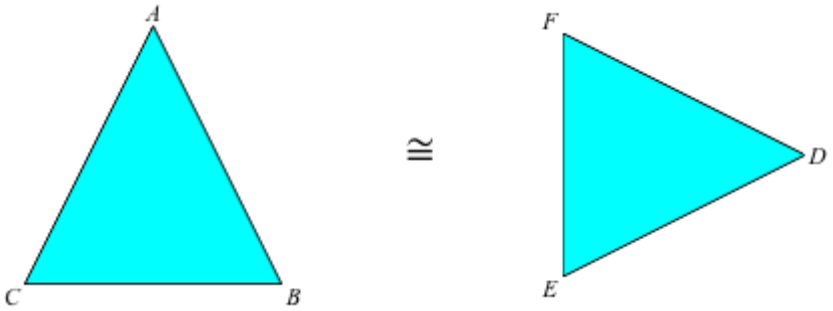
Unit 2 – Congruency: Congruence Symbol: ____

What does it mean to be Congruent: _____

_____



Congruency Statement: _____

Using the given congruency statement, find the corresponding congruent parts:

$$\Delta KLM \cong \Delta ARN$$

1. $< K \cong$ _____ 2. $< N \cong$ _____ 3. $< R \cong$ _____ 4. $< M \cong$ _____

5. $\overline{LM} \cong$ _____ 6. $\overline{AR} \cong$ _____ 7. $\overline{NA} \cong$ _____ 8. $\overline{LK} \cong$ _____

$$\blacksquare LOPX \cong \blacksquare ERCY$$

9. $< P \cong$ _____ 10. $< E \cong$ _____ 11. $< R \cong$ _____ 12. $< Y \cong$ _____

13. $\overline{LO} \cong$ _____ 14. $\overline{CY} \cong$ _____ 15. $\overline{OP} \cong$ _____ 16. $\overline{XL} \cong$ _____

We can prove two shapes are congruent through transformations.

To do this we want to match:

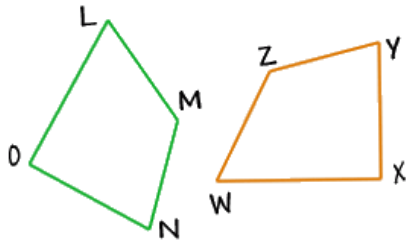
Point to _____ by using _____

Line to _____ by using _____

Plane to _____ by using _____

Congruent Figures:

Are these two figures congruent? Circle an option below.



YES, CONGRUENT **NO, NOT CONGRUENT**

- IF YES, fill in the following statement:

  Translate until _____ coincides with _____,

  Rotate until _____ coincides with _____,

  Reflect over _____.

- IF NO, explain why here: _____

  _____

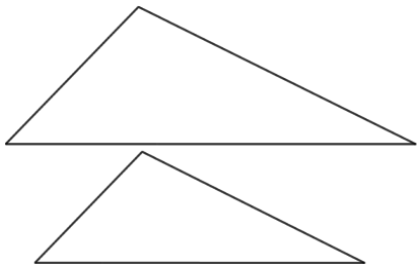
  _____.

Congruent Figures:

Are these two figures congruent? Circle an option below.

YES, CONGRUENT **NO, NOT CONGRUENT**

- IF YES, fill in the following statement:



Translate until _____ coincides with _____,

Rotate until _____ coincides with _____,

Reflect over _____.

- IF NO, explain why here: _____

_____

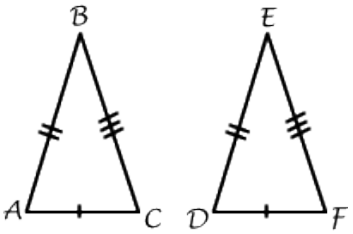
_____.

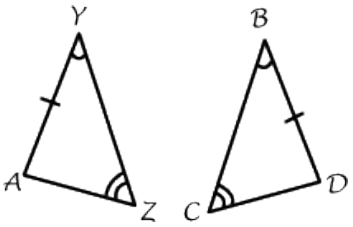
If two figures are congruent, is it possible that you and your neighbor could have gotten different answers on how to prove they are congruent?

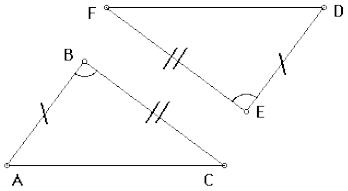
Triangle Congruency Criteria: _____

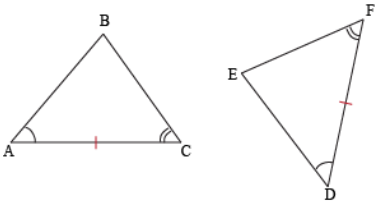
_____

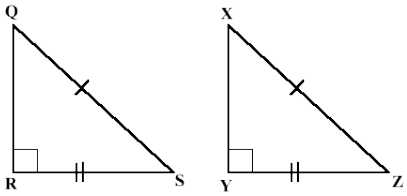
Triangle Criteria That Works:



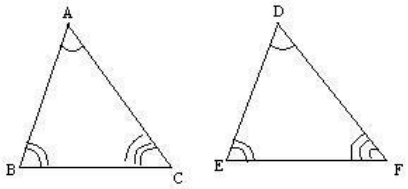


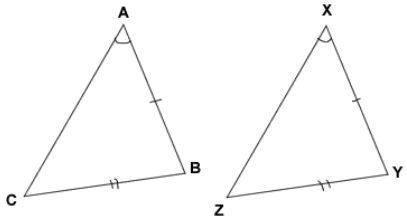




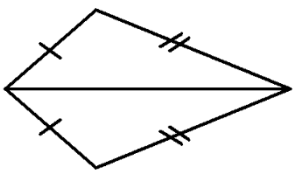


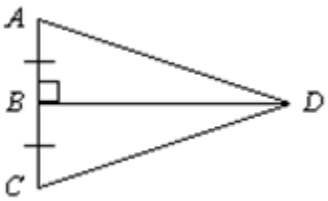
Triangle Criteria That Does Not Work:





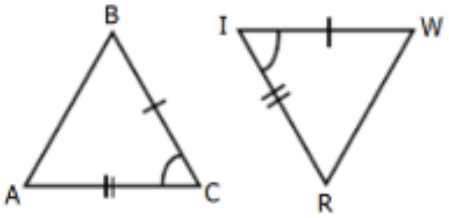
Reflexive Property: _____



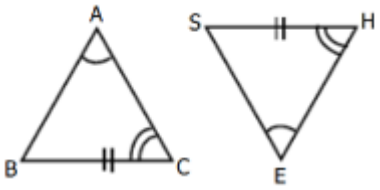


Determine if the following triangles are congruent. If so, state by which criteria:

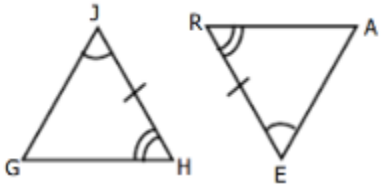
1. Congruent: YES or NO
Criteria: _____



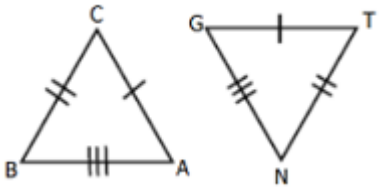
2. Congruent: YES or NO
Criteria: _____



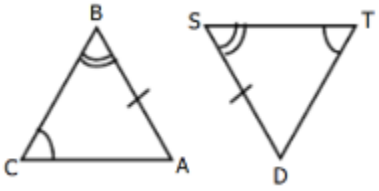
3. Congruent: YES or NO
Criteria: _____



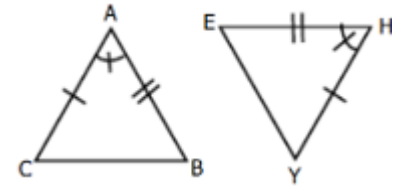
4. Congruent: YES or NO
Criteria: _____



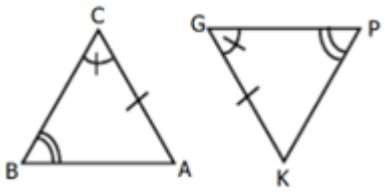
5. Congruent: YES or NO
Criteria: _____



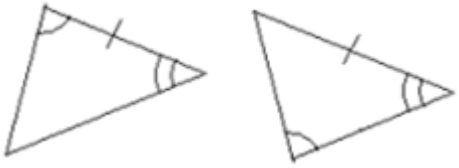
6. Congruent: YES or NO
Criteria: _____



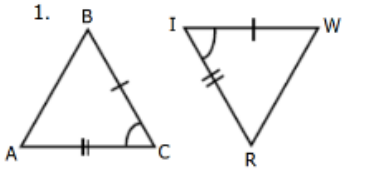
7. Congruent: YES or NO
Criteria: _____



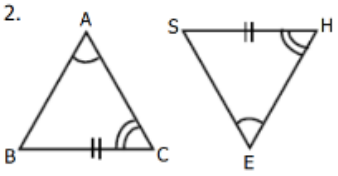
8. Congruent: YES or NO
Criteria: _____



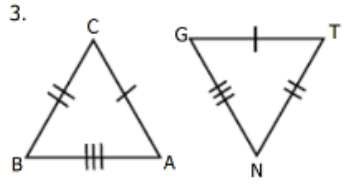
Determine if the following are congruent, if so complete the congruence statement and state by what criteria?

1. 

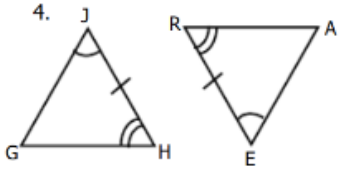
ΔABC ≅ Δ _____ by _____

2. 

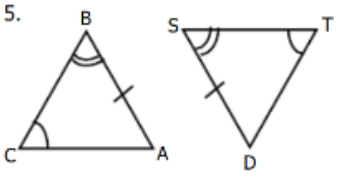
ΔABC ≅ Δ _____ by _____

3. 

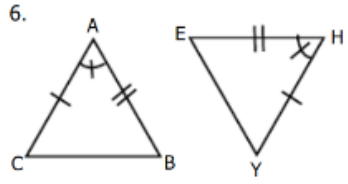
ΔABC ≅ Δ _____ by _____

4. 

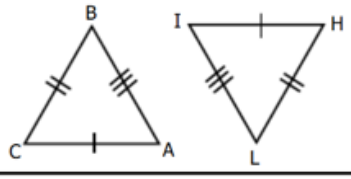
ΔGHJ ≅ Δ _____ by _____

5. 

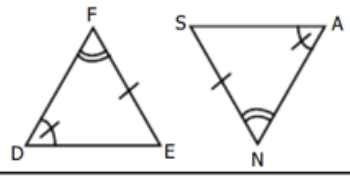
ΔABC ≅ Δ _____ by _____

6. 

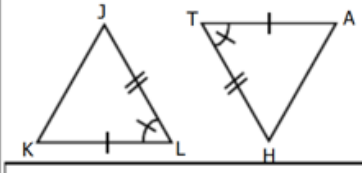
ΔABC ≅ Δ _____ by _____

7. 

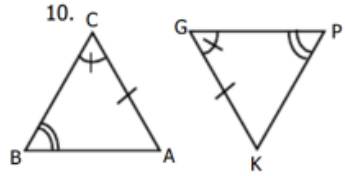
ΔABC ≅ Δ _____ by _____

8. 

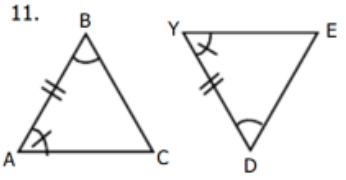
ΔDEF ≅ Δ _____ by _____

9. 

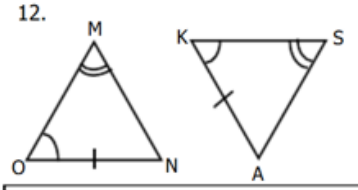
ΔJKL ≅ Δ _____ by _____

10. 

ΔABC ≅ Δ _____ by _____

11. 

ΔABC ≅ Δ _____ by _____

12. 

ΔMNO ≅ Δ _____ by _____

13. If two figures are congruent, must be true about their matching (corresponding) parts?

14. Complete the following statements using this congruence statement.

ABCDE ≅ VZYWX

∠CDE≅ _____ ED≅ _____ ∠AED≅ _____ VZ≅ _____ ∠ABC≅ _____