# <u>Learning Objective(s)</u>:

# Main Ideas/ Questions

Definitions

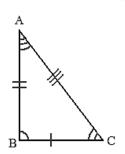
#### **Notes**

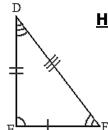
<u>Congruent Triangles</u> – Two triangles that ALL 3 \_\_\_\_\_ and are CONGRUENT!

<u>Corresponding Parts</u> – Parts of congruent triangles that "\_\_\_\_\_"

#### Congruence Statement

Must follow the SAME \_\_\_\_\_!!

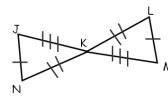




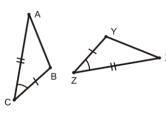
How can we write three different congruency statements?

#### Congruence Statement Examples

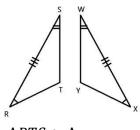
## Complete the congruence statement



 $\Delta NKJ \cong \Delta$ 



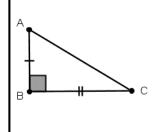
 $\Delta YXZ \cong \Delta$ 

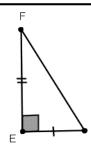


 $\Delta RTS \cong \Delta$ 

If  $\triangle ABC \cong \triangle DEF$ , then...

# Corresponding Parts with Diagrams





1) *BC* ≅ \_\_\_\_\_

- I) BC = \_\_\_\_
- 2) ∠*A* ≅ \_\_\_\_
- 3) *ED* ≅ \_\_\_\_\_
- 4) ∠*D* ≅ \_\_\_\_\_

Corresponding Parts with No Diagrams

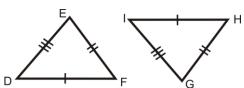
If  $\triangle CAT \cong \triangle DOG$ , then...

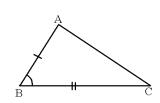
- **1)** *AC* ≅ \_\_\_\_\_
- 2) ∠*T* ≅ \_\_\_\_\_
- 3) *GO* ≅ \_\_\_\_\_
- 4) ∠*ATC* ≅ \_\_\_\_\_

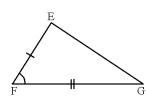
## Main Ideas/ Questions

5 Ways to Prove Triangles are Congruent

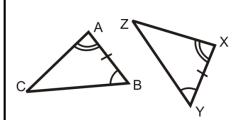


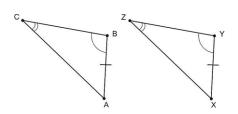


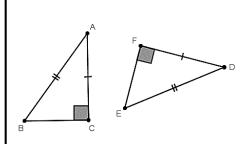




YOU CANNOT SKIP A SIDE **AND** AN ANGLE AT THE SAME TIME!









**Lookout**: Markings You Can Add!



Share a side

Reason: Reflexive Property



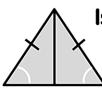
**Vertical Angles** 

Reason: Vertical Angles are congruent



Alternate Interior Angles

Reason: Alt. Int. angles are congruent



**Isosceles Triangle** 

Reason: Opposite congruent sides are congruent angles.

### **Summary**

Summarize the lesson in your own words with the help of the guided questions.

Why is it important to understand corresponding parts and writing congruency statements using congruent triangles?