

# Triangle Similarity

12/15

ES:

What does it mean for triangles to be similar? How do we show  $\Delta$ s are similar?

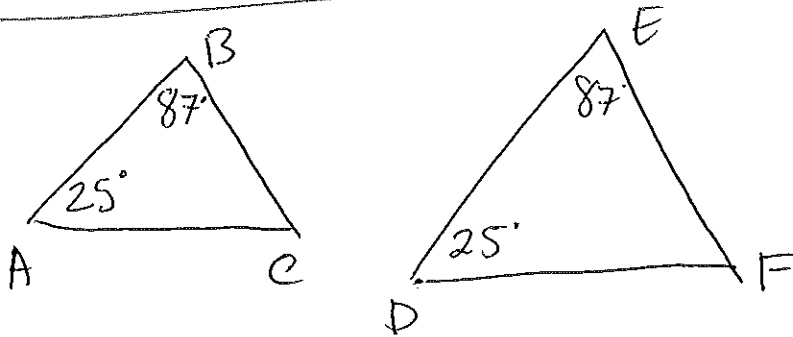
For two  $\Delta$ s to be similar:

- ① Corresponding angles are congruent.
- ② Corresponding side lengths are proportional - ratios are equal.

What is a flowchart?

Is a tool to organize facts and show where the facts lead to a conclusion.

EX  
Condition #1



Facts:



Conclusion:

$\triangle ABC \sim \triangle DEF$

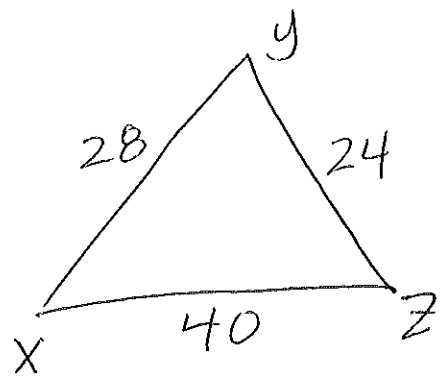
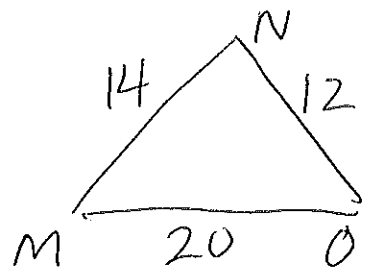
By  $AA \sim$

What is  $AA \sim$ ?

Angle - Angle similarity conjecture

ex2

Condition #2



Facts:

$$\frac{14}{28} = .5$$

$$\frac{12}{24} = .5$$

$$\frac{20}{40} = .5$$

Conclusion:

$$\triangle MNO \sim \triangle XYZ$$

by SSS ~

What is SSS ~?

Side-Side-Side Similarity Conjecture.

Summary

What are two similarity conjectures that you learned today?