Math Today

1. Get the 11.5 Notes off the front table.

2. We will take 11.5 Notes
"Angle - Angle - Triangle Similarity"

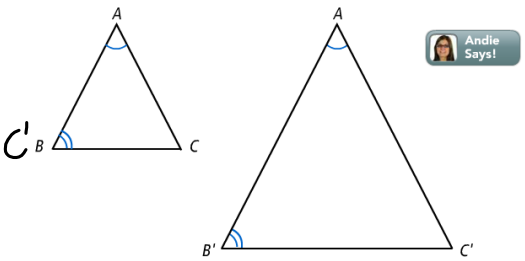
3. **HOMEWORK = 11.5 Practice Worksheet**

1. Watch and Discuss the Key Concept Video.

If two angles of one triangle are congruent to two angles of another triangle, then the triangles are similar.

equal

$\triangle ABC \sim \triangle AB'C'$



$\angle A \cong \angle A$ and $\angle ABC \cong \angle AB'C'$. So $\triangle ABC \sim \triangle AB'C'$.

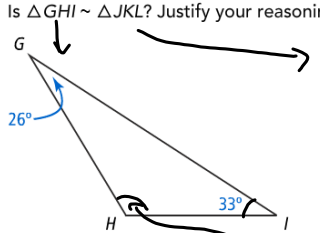
Reflect

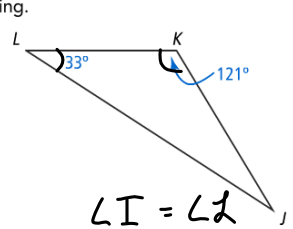
Would using a protractor make this problem easier? Explain.

2. Complete the Part 1 Got It.

Got It?

Is $\triangle GHI \sim \triangle JKL$? Justify your reasoning.





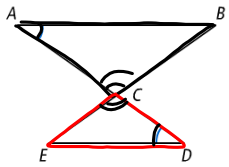
$180 - 26 - 33 = 121°$

$\angle I = \angle L$
$\angle H = \angle K$
Yes, $\triangle GHI \sim \triangle JKL$

3. Discuss the Part 2 Example

Example

Can you conclude that $\triangle ABC \sim \triangle DEC$?
Justify your reasoning.



Know $\angle C = \angle C$ Both $\triangle$s = 180°

Need 2 Equal Angles

Plan $\angle C = \angle C$
$\angle A = \angle D$
Yes, $\triangle ABC \sim \triangle DEC$

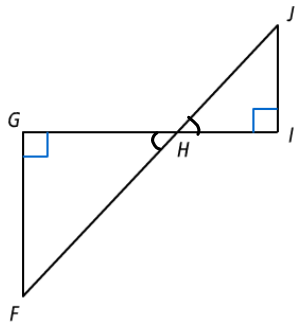
Reflect

Would using a protractor make this problem easier? Explain.

4. Complete the Part 1 Got It.

Got It?

Can you conclude that $\triangle FGH \sim \triangle JIH$? Justify your reasoning.



$\angle H = \angle H$

$\angle F = \angle I$

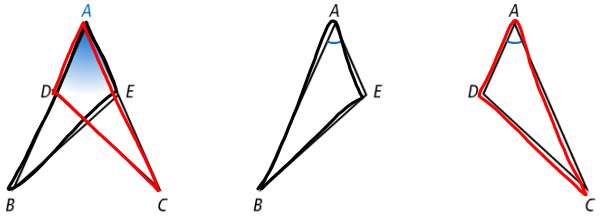
Yes, $\triangle FGH \sim \triangle JIH$

5. Examine and Discuss the Part 3 Intro.

Intro

Overlapping triangles may have a common side or angle.

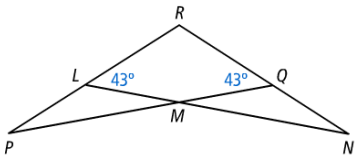
You can simplify your work with overlapping triangles by separating and redrawing the triangles.



6. Help your teacher complete the Part 3 Example

Example

Decide whether each statement is true or false. Circle T for "true" and F for "false." Justify your reasoning.



a. $\triangle LMP$ must be similar to $\triangle QMN$. (T) F

b. $\triangle LMP$ must be similar to $\triangle RPQ$. T (F)

c. $\triangle RPQ$ must be similar to $\triangle RNL$. (T) F

d. $\triangle QMN$ must be similar to $\triangle RLN$. T (F)

7. Complete the Part 3 Got It.

Got It?

Which statements must be true?

I. $\triangle AZR \sim \triangle AKL$ **II.** $\triangle ZGL \sim \triangle KGR$ **III.** $\triangle AKL \sim \triangle GKR$

$\angle R = \angle L$

$\angle A = \angle A$

$\angle A = \angle A$

$\angle R = \angle K$