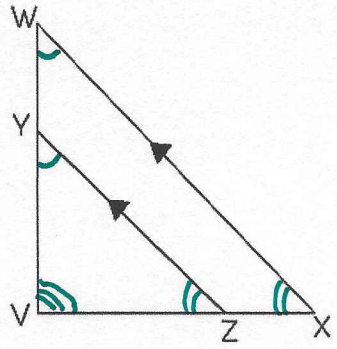
Geometry – DAY 2.8
Triangle Similarity, Day 2

Name: Key
Date: _____

Try these four problems – they walk you through how to solve them! Are these triangles similar? If so, state the similarity statement. If they are not similar, just write "not similar."

1.



A. Find any congruent angles. Mark them.

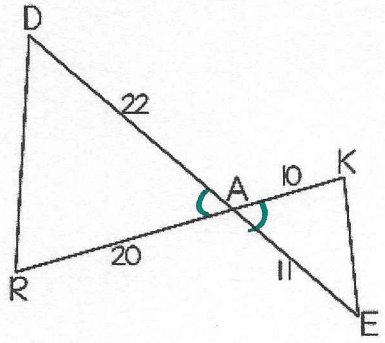
{Since you have parallel lines, think of transversal angle pairs like corresponding angles...}

B. Now, are the triangles similar? [YES] or NO

C. If so, state how: AA~

D. $\Delta VWX \sim \Delta$ VYZ

2.



A. Find any congruent angles. Mark them.

B. Are the sides proportional? yes!

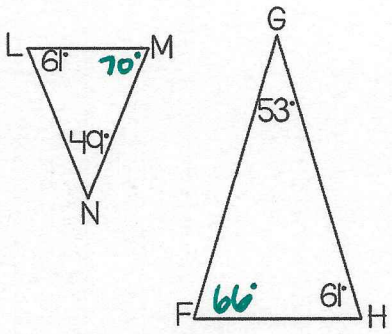
Set up your ratios HERE: $\frac{20}{10} = \frac{22}{11}$ $2 = 2$ ✓

C. Now, are the triangles similar? [YES] or NO

D. If so, state how: SAS~

E. $\Delta RAD \sim \Delta$ KAE

3.



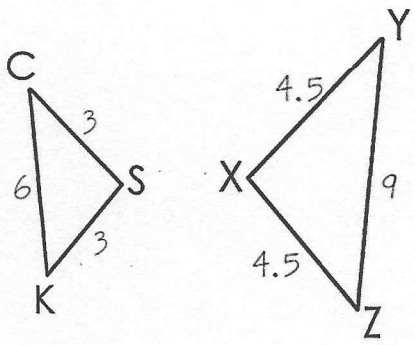
A. Can you find the missing angles? Mark them.

B. Are the triangles similar? YES or [NO]

C. If so, state how: —

D. $\Delta LMN \sim \Delta$ —

4.



A. Are the sides proportional? yes!

Set up your ratios HERE: $\frac{3}{4.5} = \frac{3}{4.5} = \frac{6}{9}$ $.67 = .67 = .67$ ✓

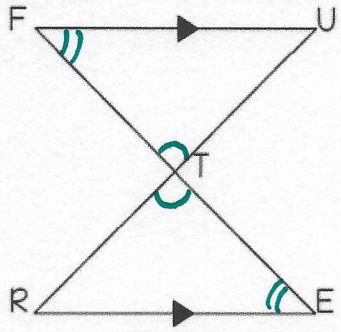
B. Are the triangles similar? [YES] or NO

C. If so, state how: SSS~

D. $\Delta KCS \sim \Delta$ YZX or ZYX (since they are isosceles Δs)

CLASSWORK! Remember – you need to SHOW WORK when you are figuring out if the sides of the two triangles are proportional. Also, make sure you mark any congruent angles if possible. If they are not similar, just write "not similar."

1.



A. Are these triangles similar? YES or NO

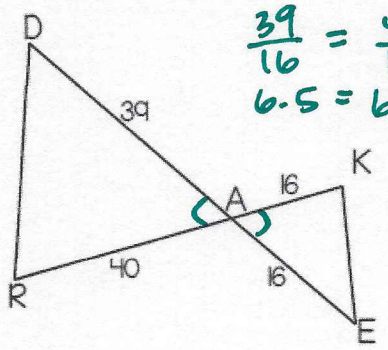
B. If so, state how: AA~

C. $\Delta TRE \sim \Delta$ TVF

2.

$\frac{39}{16} = \frac{40}{16}$

$6.5 = 6.67$ X

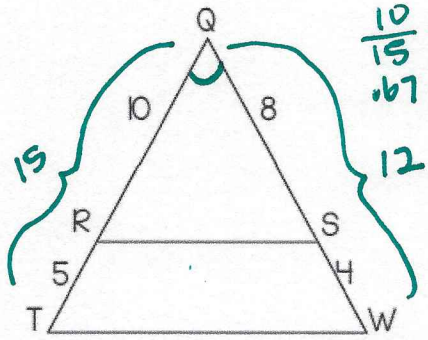


A. Are these triangles similar? YES or NO

B. If so, state how: —

C. $\Delta KEA \sim \Delta$ —

3.



$\frac{10}{15} = \frac{8}{12}$

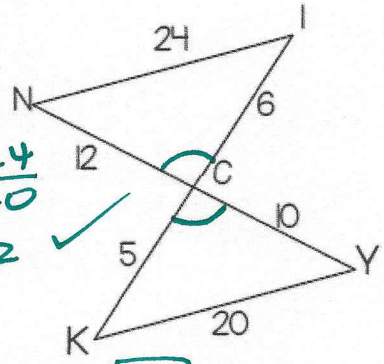
$.67 = .67$ ✓

A. Are these triangles similar? YES or NO

B. If so, state how: SAS~

C. $\Delta TQW \sim \Delta$ RQS

4. *there are two methods for this one*



$\frac{6}{5} = \frac{12}{10} = \frac{24}{20}$

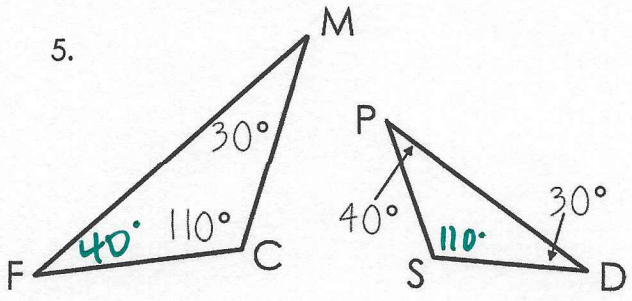
$1.2 = 1.2 = 1.2$ ✓

A. Are these triangles similar? YES or NO

B. If so, state how: SSS~ OR SAS~

C. $\Delta ICN \sim \Delta$ KCY

5.

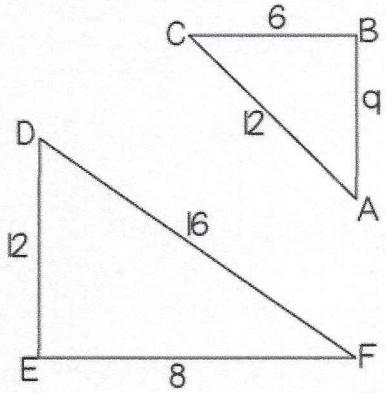


A. Are these triangles similar? YES or NO

B. If so, state how: AA~

C. $\Delta SPD \sim \Delta$ CFM

6.



$\frac{8}{6} = \frac{12}{9} = \frac{16}{12}$

$1.33 = 1.33 = 1.33$ ✓

A. Are these triangles similar? YES or NO

B. If so, state how: SSS~

C. $\Delta EDF \sim \Delta$ BAC