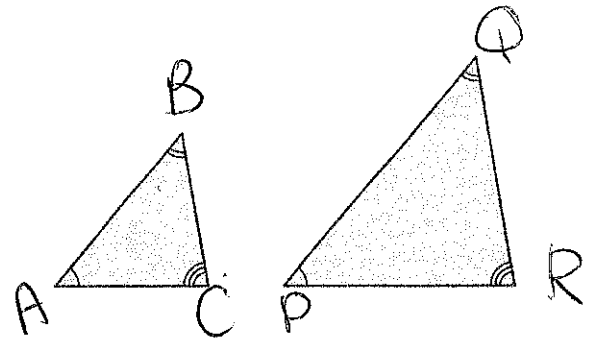


Name \_\_\_\_\_ Midterm Exam Review 5

Similar triangles:

- Preserve shape
- Preserve orientation
- Preserve angle measure (angles are congruent)

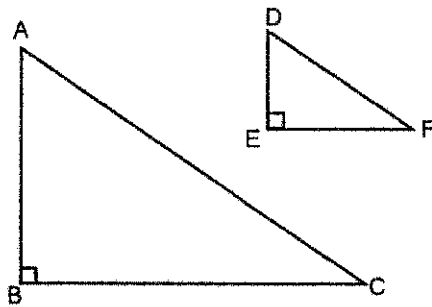
The do NOT preserve the side lengths! Sides are proportional!



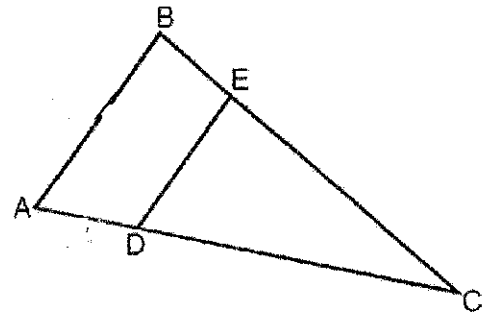
Similar triangles are a result of a dilation!

List all proportional sides, then complete the similarity statement:

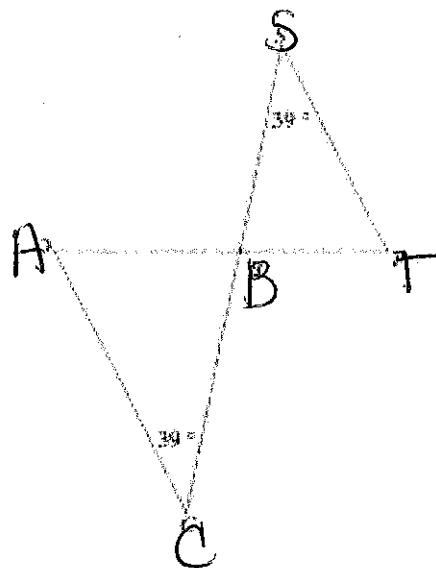
1.



2.



3.



Triangle similarity theorems:

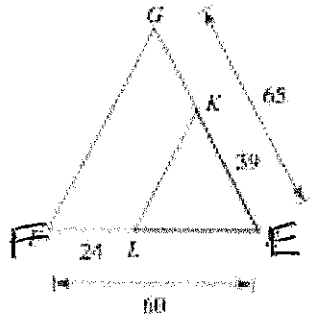
AA~

SSS~

SAS~

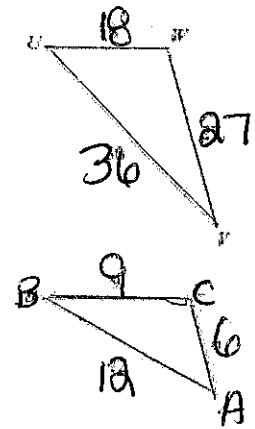
Are the triangles similar? Name the theorem and complete the similarity statement.

4.



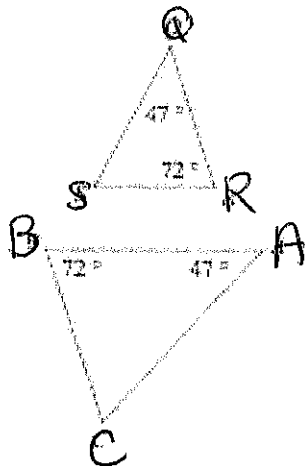
$\triangle EFG \sim$  \_\_\_\_\_

5.



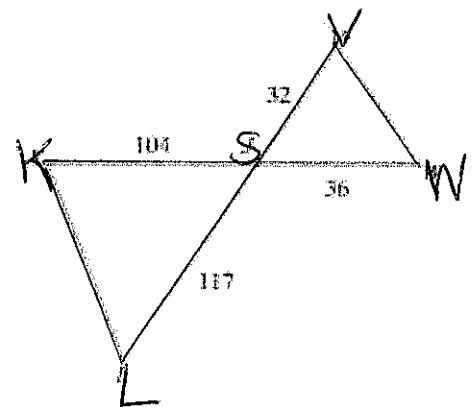
$\triangle UVW \sim$  \_\_\_\_\_

6.



$\triangle ABC \sim$  \_\_\_\_\_

7.



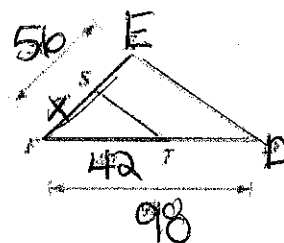
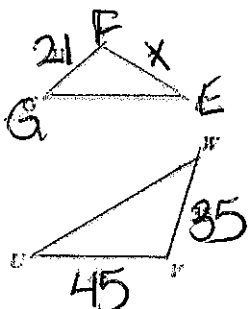
Find

the missing side length

8.

9.

$\triangle WVU \sim \triangle GFE$

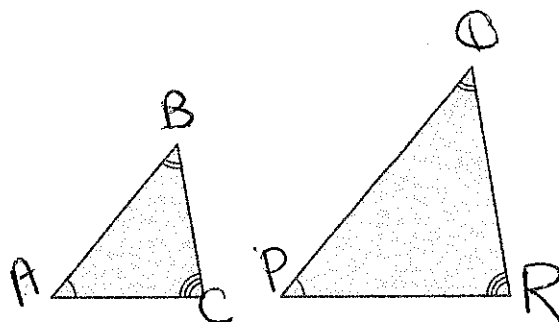


Name Key Midterm Exam Review 5

Similar triangles:

- Preserve shape
- Preserve orientation
- Preserve angle measure (angles are congruent)

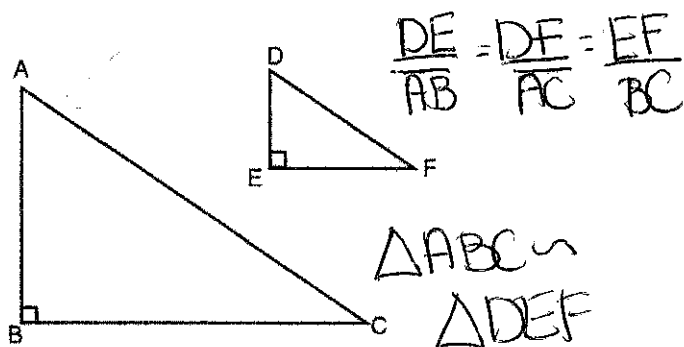
The do NOT preserve the side lengths! Sides are proportional!



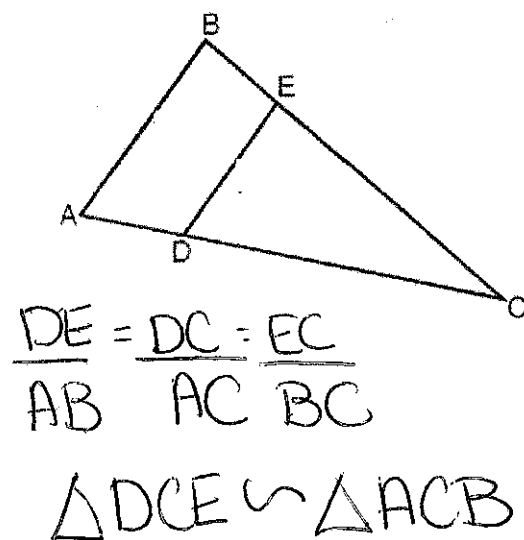
Similar triangles are a result of a dilation!

List all proportional sides, then complete the similarity statement:

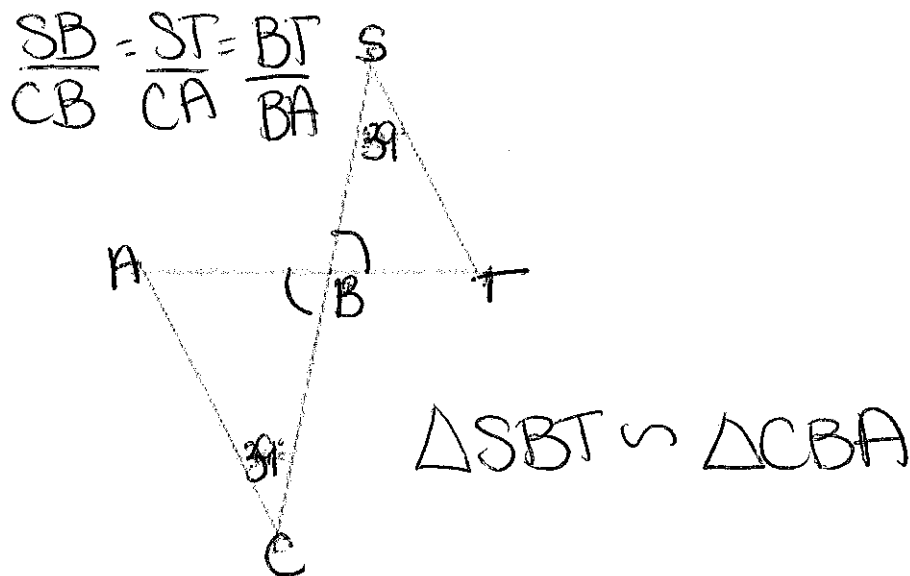
1.



2.



3.



Triangle similarity theorems:

AA~

SSS~

SAS~

Are the triangles similar? Name the theorem and complete the similarity statement.

4.

$\frac{60}{24} = \frac{36}{12}$   
 $\frac{39}{65} = \frac{3}{5}$   
 $\frac{30}{60} = \frac{1}{2}$   
 $\triangle KEL \cong \triangle GEF$   
 $\triangle EFG \sim \triangle ELK$  by SAS~

5.

$\frac{6}{18} = \frac{1}{3}$   
 $\frac{9}{27} = \frac{1}{3}$   
 $\frac{12}{36} = \frac{1}{3}$

$\triangle UPQ \sim \triangle BAC$   
 by SSS~

6.

$\angle Q \cong \angle A$   
 $\angle R \cong \angle B$   
 $\triangle ABC \sim \triangle QRS$  by AA~

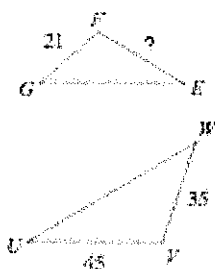
7.

$\frac{32}{104} = \frac{4}{13}$   
 $\frac{36}{117} = \frac{4}{13}$   
 $\triangle VSW \sim \triangle KSL$   
 (Vertical)

Find

8.

$\triangle WYU \sim \triangle GFE$

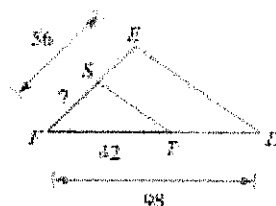


$\frac{x}{45} = \frac{21}{35}$

$35x = 945$

$x = 27$

9.



$\frac{x}{56} = \frac{42}{98}$

$98x = 2352$

$x = 24$