

# Geometry

**Chapter 9**  
**Section 9-7**

# Vocabulary

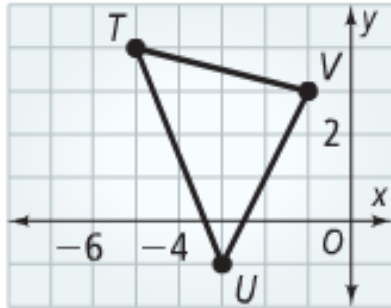
Similarity Transformation	A transformation (or set of transformations) in which the image is similar to the preimage
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# Using Similarity Transformations

Find the coordinates of the image of the following:

$$(r_{(180,0)} \circ D_3)(TUV)$$

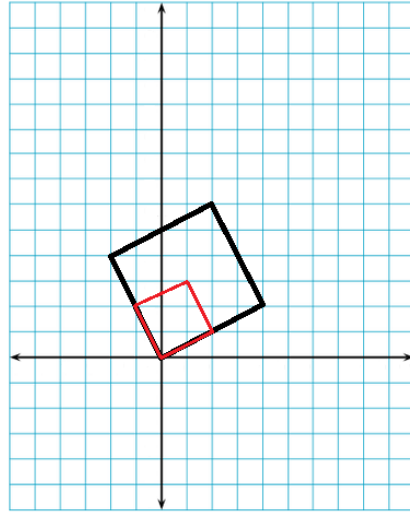
$$(D_3 \circ R_{y\text{-axis}})(TUV)$$



# Identifying Similarity Transformations

The red figure is the image of a similarity transformation.  
Identify the transformation:

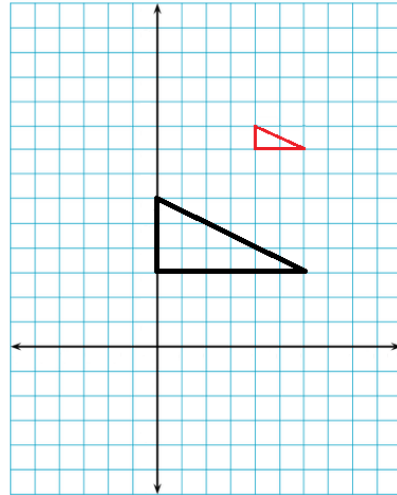
$D_{0.5}$  (Black Square)



# Identifying Similarity Transformations

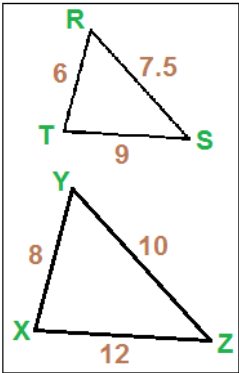
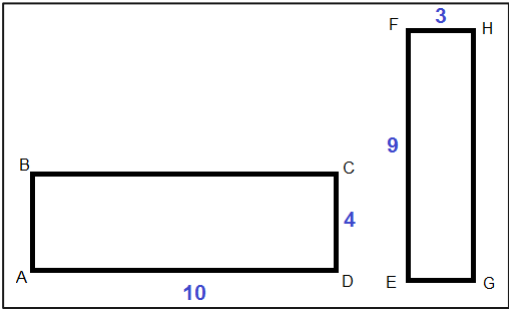
The red figure is the image of a similarity transformation.  
Identify the transformation:

$$(T_{\langle 4,7 \rangle} \circ D_{1/3})(\text{Black } \Delta)$$



# Similarity Transformations

Determine if the two figures are similar. If so, identify the scale and write a similarity statement.



Rectangles not similar

3/4

Triangles Similar  
Scale from XYZ to TRS is

$XYZ \sim TRS$

# Homework

**Pages 598 - 599**

**# 5 - 13 odd, 19 - 24 all**