Math III   *Name*_____*Pd___Date_____*
Similarity Transformations G.SRT.2

1. Name the similarity transformations - What makes them different from the isometric transformations?

2. Why are isometric transformation a part of the similarity transformations?

3. Determine whether the following are (T)rue or (F)alse.

    a) Similarity transformations are all isometric transformations.   T or F
    b) Rotation is a similarity transformation.   T or F
    c) All transformations are isometric.   T or F
    d) Dilation is a non-isometric transformation.   T or F
    e) Stretch is not a similarity transformation.   T or F

4. Given that $\triangle AFG \sim \triangle DRH$. Complete the following.

$\angle H \cong \angle$ _____ $\dfrac{DR}{AF} = \dfrac{DH}{\boxed{}}$ _____ $\angle D \cong \angle$ _____ $\dfrac{\boxed{}}{RH} = \dfrac{AG}{DH}$ _____

5. Pentagon ABCDE is similar to Pentagon RYMNT. Complete the following.

$\angle C \cong \angle$ _____ $\dfrac{AB}{RY} = \dfrac{ED}{\boxed{}}$ _____ $\dfrac{MN}{RT} = \dfrac{CD}{\boxed{}}$ _____

$\angle T \cong \angle$ _____ $\dfrac{NT}{DE} = \dfrac{RT}{\boxed{}}$ _____ $\dfrac{AB}{BC} = \dfrac{RY}{\boxed{}}$ _____
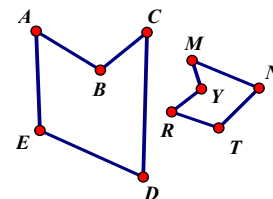
6. $\triangle ABC$ is similar to another triangle. Provided is some information about the two triangles, $\dfrac{BC}{DR} = \dfrac{AB}{TD}$. From this information determine the triangle similarity statement.
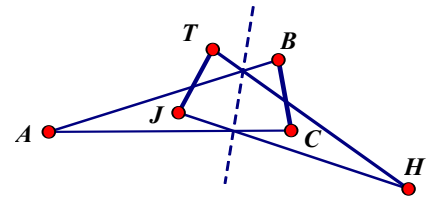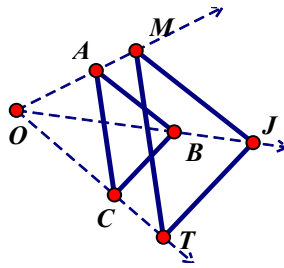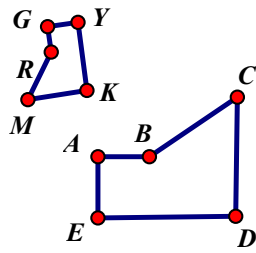
        $\triangle ABC \sim \triangle$_____

7. The two figures in each question are similar. Create the similarity statement from the diagram.

a) Pentagon GYKMR ~ _____   b) $\triangle JMT \sim$ _____   c) $\triangle BAC \sim$ _____
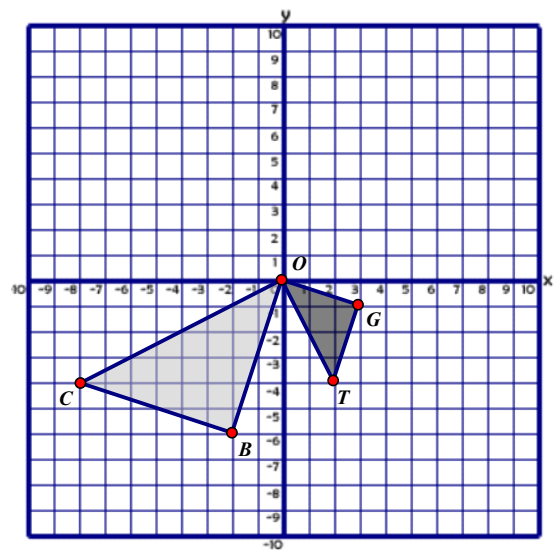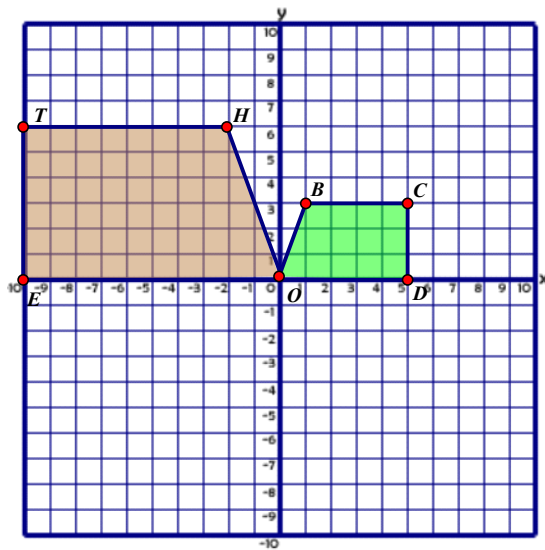
8. Determine the sequence of similarity transformations that map one figure onto the other thus establishing that the two figures are similar.

a) Determine two similarity transformations that would map Quad. OBCD onto Quad. OHTE.

_____ followed by _____

b) Determine two similarity transformations that would map ΔOBC onto ΔOGT.

_____ followed by _____

c) Determine two similarity transformations that would map Quad. GHIJ onto Quad. RKYT.

_____ followed by _____
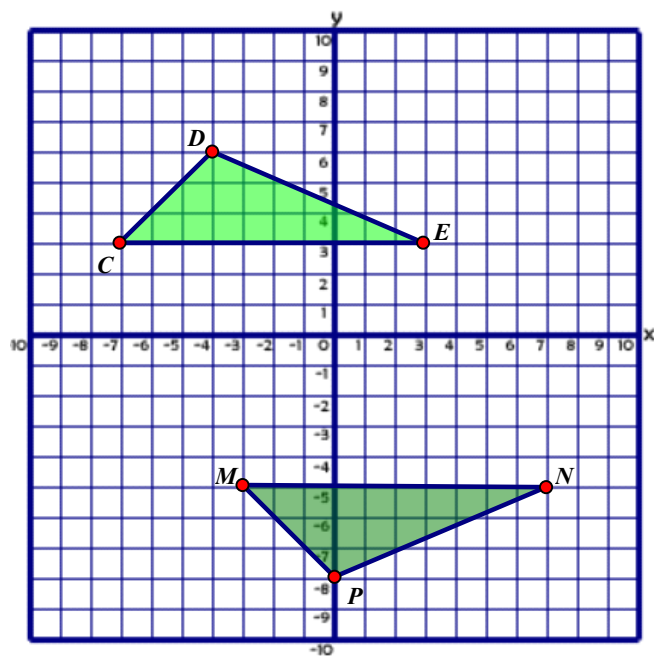
d) Determine two similarity transformations that would map ΔMNT onto ΔRFH.
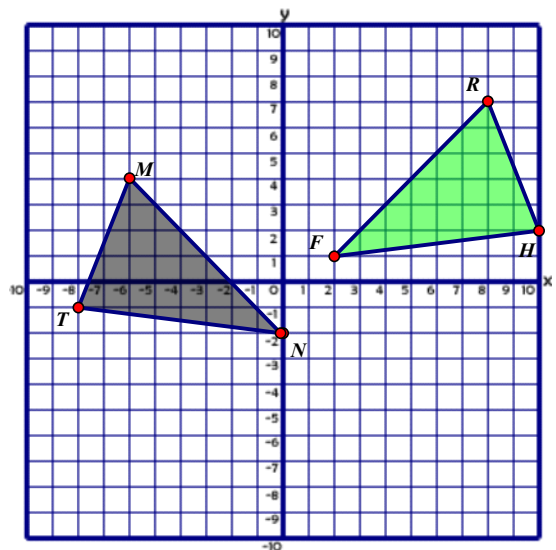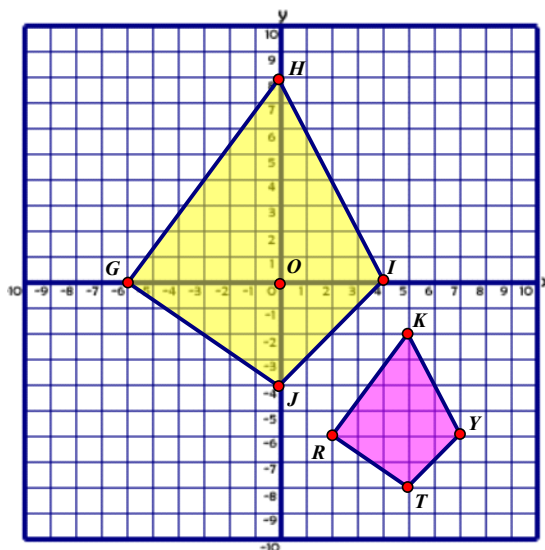
_____ followed by _____

9. Jose claims that he was able to do 4 different double similarity transformations to map ΔCDE onto ΔMPN. Let us see if you can do 4 as well. (Show the steps)
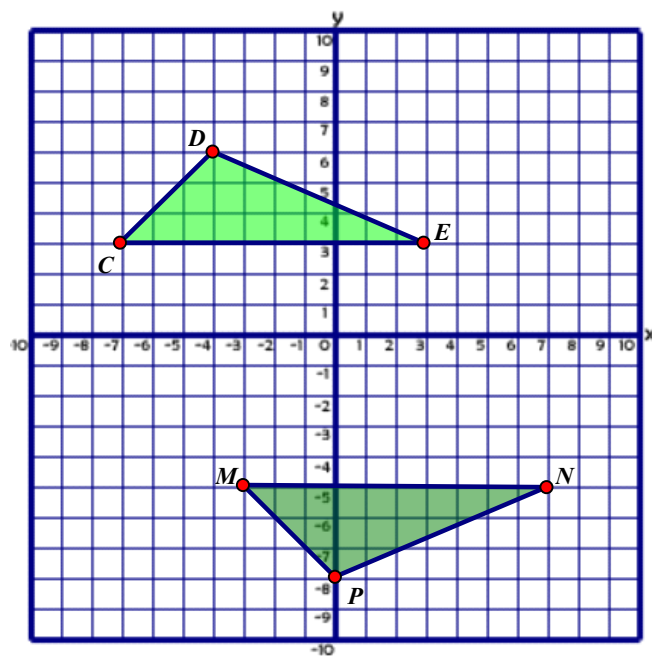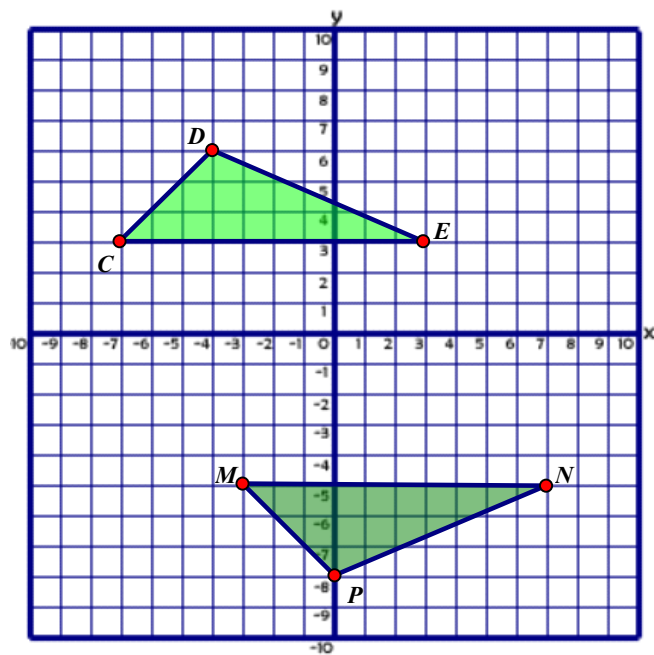
a) Method #1

b) Method #2

_____ followed by _____   _____ followed by _____

c) Method #3

d) Method #4

_____ followed by _____   _____ followed by _____