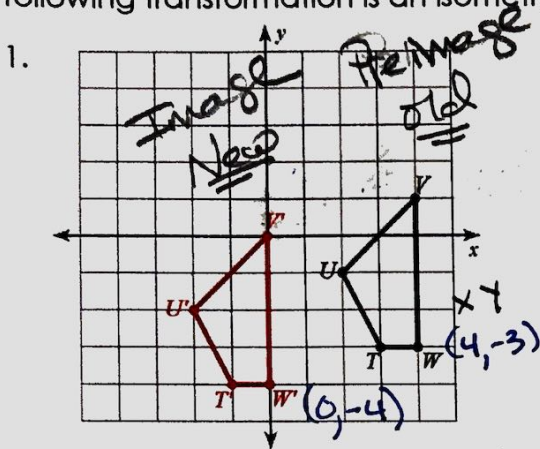


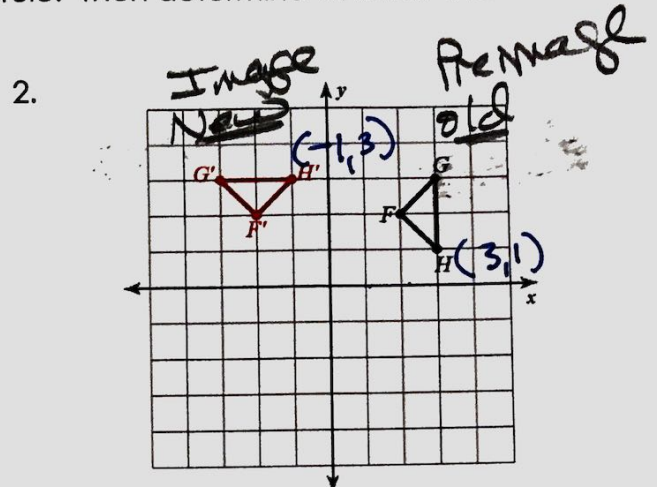
Geometry
Unit 1 Exam Review – Transformations

Name: Key
Date: _____

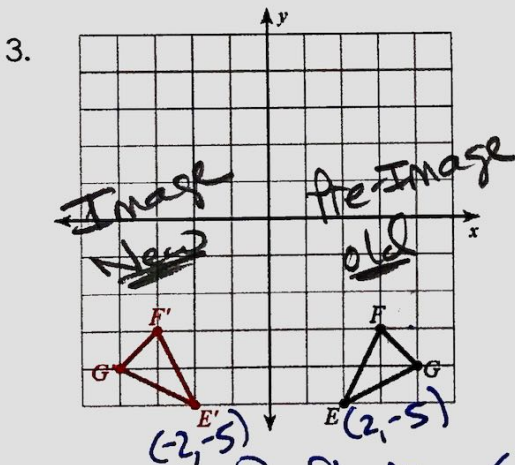
Describe the transformation shown & write the rule. Then determine whether the following transformation is an isometry.



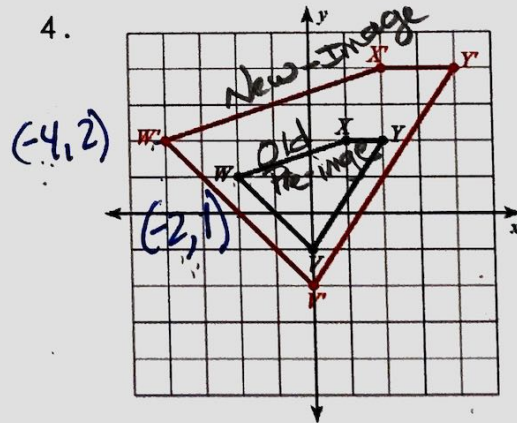
Transformation: translation (slide)
 Rule: $(x, y) \rightarrow (x-4, y-1)$ or vector $\langle -4, -1 \rangle$
 Isometry? YES or NO



Transformation: Rotation CCW
 Rule: $(x, y) \rightarrow (-y, x)$
 Isometry? YES or NO



Transformation: Reflection (mirror image)
 Rule: $(x, y) \rightarrow (-x, y)$
 Isometry? YES or NO



Transformation: Dilation
 Rule: $(x, y) \rightarrow (2x, 2y)$
 Isometry? YES or NO

5. Translate the point A(-10, 7) by the vector $\langle -5, -1 \rangle$.
 $A'(-10-5, 7-1) = \boxed{A'(-15, 6)}$ \rightarrow same as $(x-5, y-1)$

6. Reflect the point B(8, 3) over the x-axis.
Rule $R_{x\text{-axis}}$: $(x, y) \rightarrow (x, -y)$
 $(8, 3) \rightarrow (8, -3)$