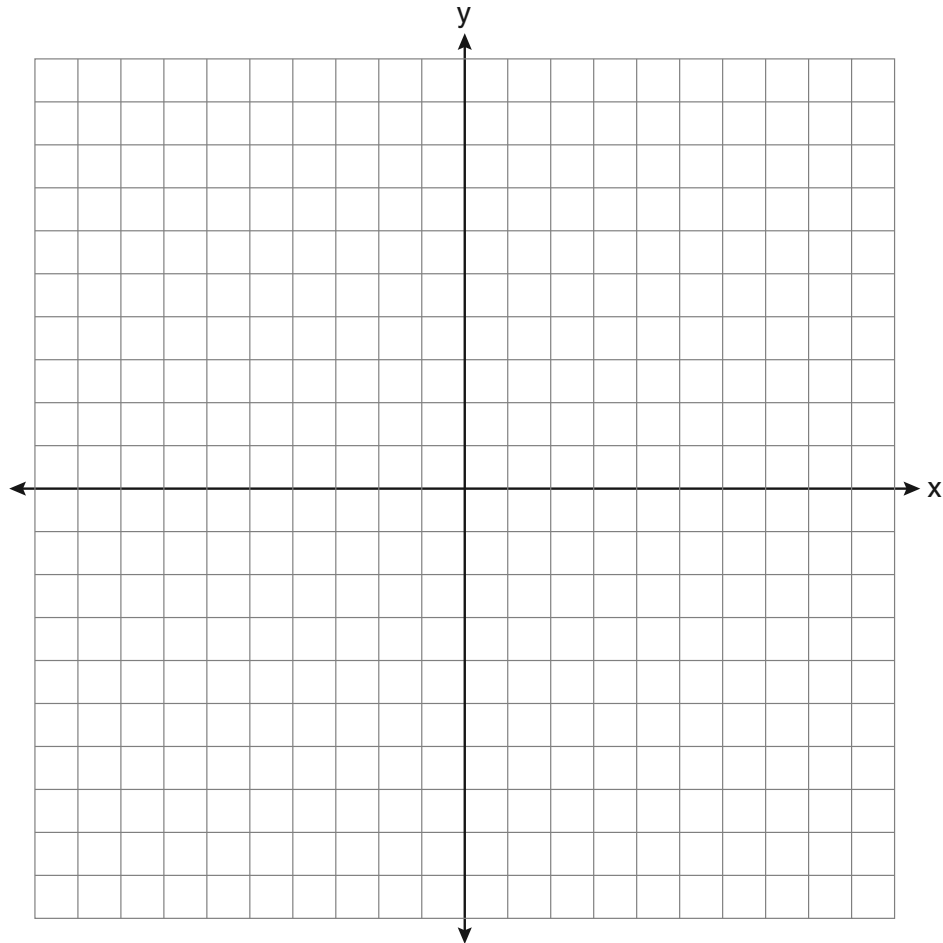


**Homework:** Rigid motions review

1. Triangle  $ABC$  has the vertices  $A(1,2)$ ,  $B(2,5)$ , and  $C(7,4)$ . Find the coordinates of  $\Delta A'B'C'$ , the image of  $\Delta ABC$  under the transformation  $T_{-2,-7}$

Graph and label both triangles. What is the relationship of the lengths of the sides of the two triangles? Justify your answer.



2. Quadrilateral  $MATH$  has the vertices  $M(-2,-1)$ ,  $A(1,3)$ ,  $T(6,3)$ , and  $H(3,-1)$ . Plot and label the image of quadrilateral  $MATH$  under the transformation  $r_{x\text{-axis}}$

State the coordinates of the image. Justify why distances are preserved by the reflection. What type of quadrilateral is  $MATH$ ?

