**Homework**: Rigid motions (Isometries)

**1. Make both a table and a labeled graph**

What is the image of triangle *ABC* after the transformation . Write down the coordinates after each transformation and plot and label all three triangles on the grid.



Justify that the area of the 3 triangles is preserved.

1. Triangle *ABC* has the vertices *A*(1,2), *B*(2,5), and *C*(7,4). Find the coordinates of , the image of 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.

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1. 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-axis

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

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