**Do Now**: Rigid motions (Isometries)

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

1. Triangle *ABC* has the vertices *A*(1,2), *B*(2,5), and *C*(7,4). Plot & label the triangle below.
2. Find the coordinates of , the image of under the transformation *T*+2,-8

*(move the triangle to the right 2 squares and down 8).*



1. Triangle *ABC* has the vertices *A*(-3,3), *B*(5,3), and *C*(3,6). 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. Plot the quadrilateral *MATH* having 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 *T*+3,-2

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

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