

NAME: _____ CLASS: _____

Transformation 1 – “Trading Places”

1. On a piece of graph paper, plot the points, A(-4,3), B(-11,4) and C(-9,9).
2. With your ruler, draw the triangle ABC.
3. You are now going to change each of the coordinates by doing the following:
 - a. To each x-coordinate, add 7.
 - b. To each y-coordinate, add -9.

4. List the coordinates of the new points

Point A(-4,3) moves to D(____, ____)

Point B(-11,4) moves to E (____, ____)

Point C(-9,9) moves to F (____, ____)

5. Plot the points and connect them to form triangle DEF.
6. Use a ruler to measure all the sides of both triangles. List the equal sides.

_____ is the same length as _____

_____ is the same length as _____

_____ is the same length as _____

7. What happened when you moved each point of a triangle by adding the same amount to the x-coordinates and the same amount to the y-coordinates?

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8. Have the sizes of the two triangles changed? _____
 9. Has the way that triangle ABC is situated on the graph paper changed when it moved to DEF?

 10. How would you describe these two triangles? They are _____ to each other.
 11. If you measured the areas of the two triangles, they would probably be _____.
 12. This transformation is called a _____. It is also called a _____.
 13. The syntax for a _____ is $T_{(x,y)}$ where x & y tell you how to change the original points.