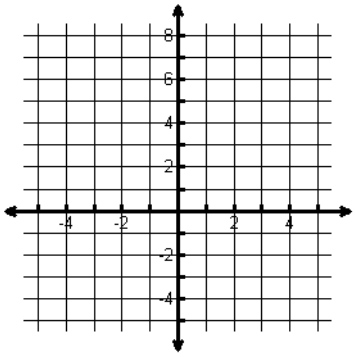
Combinations of Transformations

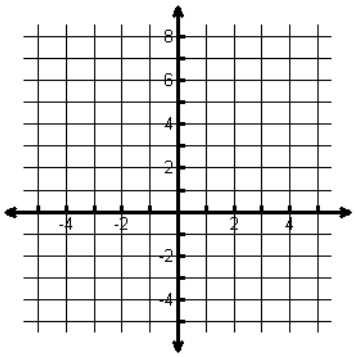
Name: _____ Date: _____

Graph the image of A(1, -3) & each transformation.

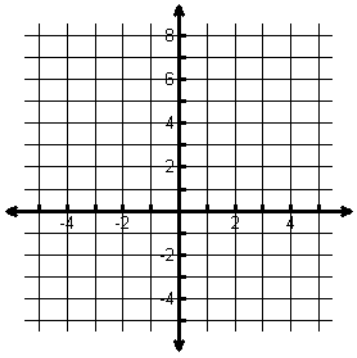
1. Translation: (x + 2, y)
   Reflection: across the x-axis



2. Reflection: across y = 2
   Translation: (x – 4, y – 3)

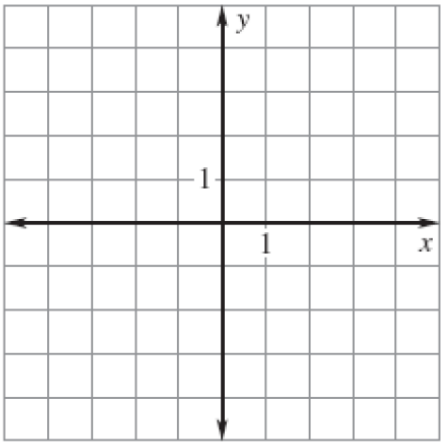


3. Translation: (x – 3, y + 2)
   Reflection: across x = 1

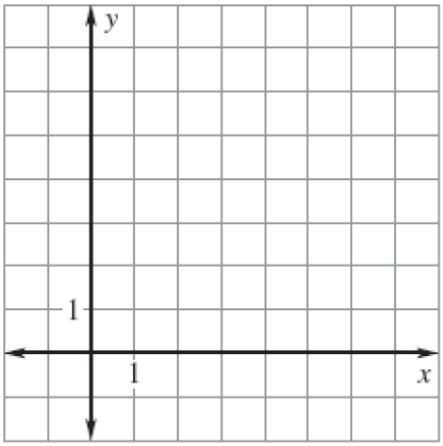


The endpoints of CD are C(1, 2) and D(5, 4). Graph the image of CD & each transformation.

4. Reflection: across the x-axis
   Translation: (x – 4, y)

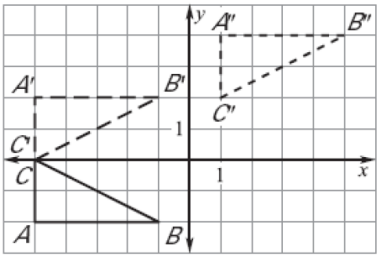


5. Translation: (x , y + 2)
   - Reflection: across y = x

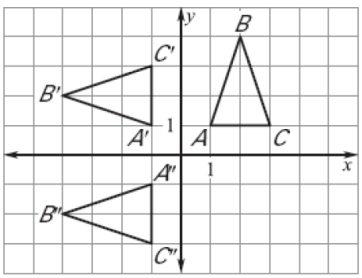


Write the rule for the combinations that were applied to ΔABC. **Pay attention to the order**

6.

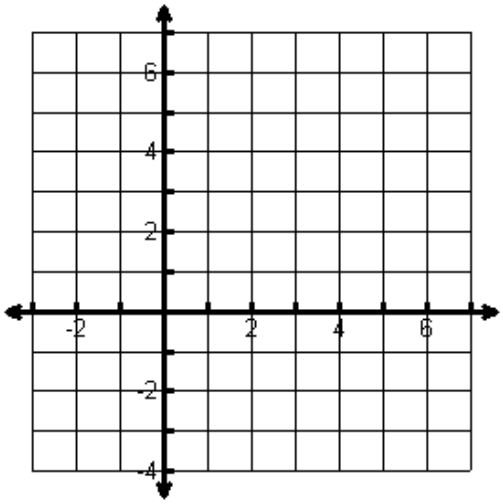


7.

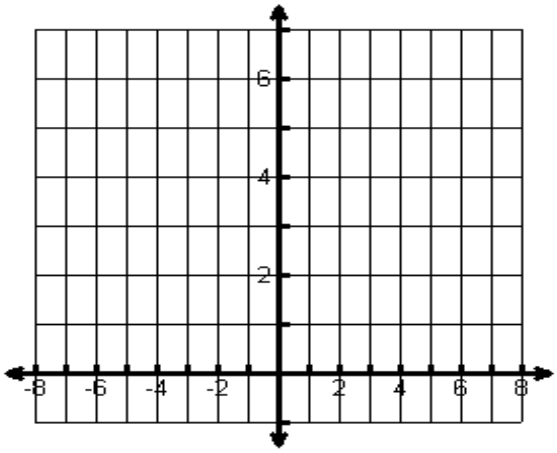


The vertices of ∆ABC are A(2,4), B(7,6), and C(5,3). Graph the image of ∆ABC & each transformation.

8. Translation: (x – 4, y – 3)
   Reflection: across the x-axis

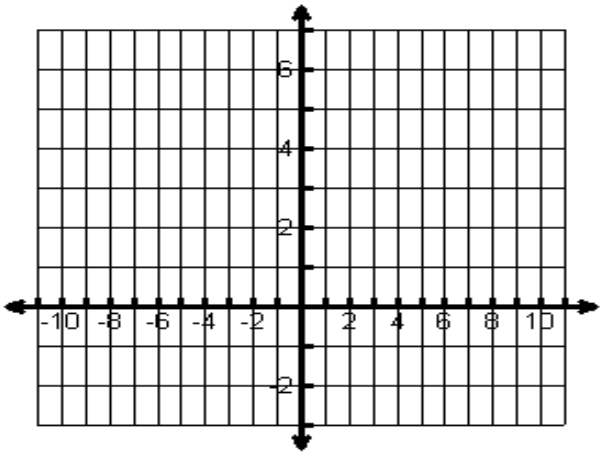


9. Reflection: across the y-axis
   Translation: (x + 2, y)

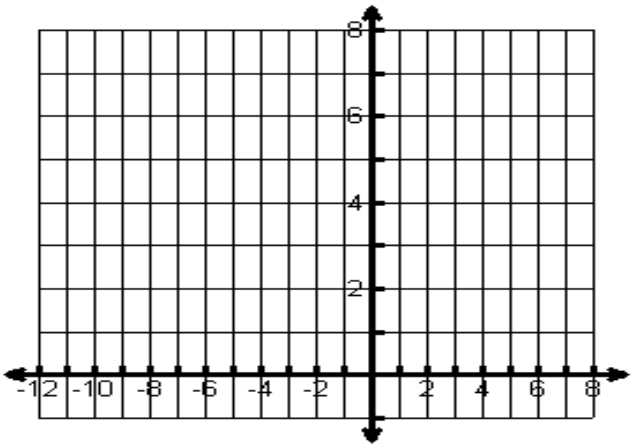


The vertices of ∆DEF are D(2,4), E(7,6), and F(5,3). Graph the image of ∆DEF & each transformation.

10. Translation: (x + 3, y – 5)
    Reflection: across the y-axis



11. Reflection: across the y - axis
    Translation: (x – 4, y + 1)



In the diagram, AB is the pre-image of a combination.

12. Which segment is a translation of AB?

13. Which segment is a reflection of A'B'?

14. Name the line of reflection.

15. Write a rule to describe the translation.