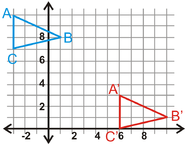
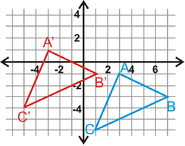
GSE Geometry HW Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Transformations and Reflections Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block:\_\_\_\_\_\_\_\_

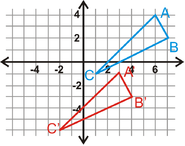
1. **Use the translation (x, y) 🡪 (x + 5, y – 9) for questions a-e.**
2. What is the image of A (-6, 3)?
3. What is the image of (4, 8)?
4. What is the image of (5, -3)?
5. What is the image of A’ from #1, which would be called A’’?
6. What is the pre-image of D’(12, 7)?
7. **The vertices of  are A(-6, -7), B(-3, -1), and C(-5, 2). Find the vertices of , given the translation rules below.**
8. (x, y) 🡪 (x – 2, y – 7)
9. (x, y) 🡪 (x + 11, y + 4)
10. (x, y) 🡪 (x, y - 3)
11. (x, y) 🡪 (x – 5, y + 8)

**3.  is the image of. Write the translation rule.**

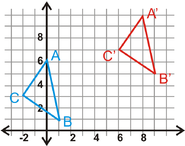
[](http://pilot.ck12.org/wiki/index.php/File:Geo-1202-08a.png)

[](http://pilot.ck12.org/wiki/index.php/File:Geo-1202.08.png)

a. b.

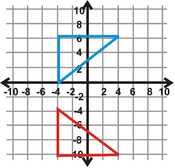
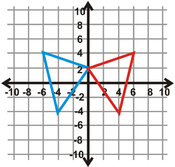
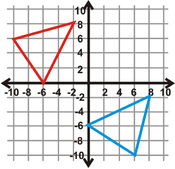
[](http://pilot.ck12.org/wiki/index.php/File:Geo-1202-09.png)

c. d.

[](http://pilot.ck12.org/wiki/index.php/File:Geo-1202-09a.png)

**4. Find the line of reflection between the pre-image and the image.**

a. b. c.

[](http://pilot.ck12.org/wiki/index.php/File:Geo-1203-16.png) [](http://pilot.ck12.org/wiki/index.php/File:Geo-1203-16a.png) [](http://pilot.ck12.org/wiki/index.php/File:Geo-1203-16b.png)

**5. Two Reflections The vertices of  are A(-5, 1), B(-3, 6), and C(2, 3). Use this information to answer questions a-d.**

1. Plot **** on the coordinate plane.
2. Reflect ****over y =1. Find the coordinates of ****.
3. Reflect **** over y = -3. Find the coordinates of ****.
4. What one transformation would be the same as this double reflection?

**6. Two Reflections The vertices of  are A(6, -2), B(8, -4), and C(3, -7). Use this information to answer questions a-d.**

1. Plot **** on the coordinate plane.
2. Reflect ****over x = 2. Find the coordinates of****.
3. Reflect **** over x = -4. Find the coordinates of ****.
4. What one transformation would be the same as this double reflection?