

Composition of Transformations Challenge!

Name: _____

Go to <https://www.geogebra.org/m/440543>.

First, get comfortable with how the use the transformations work by experimenting with the checkboxes in the upper left.

- For translations, you need to type in the translation vector.
- For reflections, you need to type in the equation OR drag the line on the screen. (x = number → horizontal; y = number → vertical)
- For rotations, you need to type in the rotation angle and specify the point of rotation.

When you are comfortable with how to perform the transformations, go to the checkboxes in the lower left. Try to figure out which transformations will map the black “L” onto each image. Write the correct transformations in the boxes below. See how many you can figure out!

<u>One-Step Matching</u>	
<u>Color</u>	<u>Transformation</u>
Red	
Orange	
Yellow	
Green	
Blue	
Purple	

<u>Two-Step Matching</u>	
<u>Color</u>	<u>Transformation</u>
Red	
Orange	
Yellow	
Green	
Blue	
Purple	

<u>Difficult Matching</u>	
<u>Color</u>	<u>Transformation</u>
Red	
Orange	
Yellow	
Green	