**Activity 1.5.4 Composition –Two Translations**

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| **Construction Steps**  In this activity you will draw the image of a triangle under a translation by carrying out the steps that follow. Draw all resulting images on the graph provided below.   1. Draw the image of under a translation by the vector and label the image . 2. Draw the image of under a translation by the vector and label the imgage |

**Comprehension Comments/Questions**

1. Comment on the horizontal and vertical distance between the corresponding vertices of and .
2. Comment on any relationship between the location of and the location of under a translation by the vector .
3. Explore by translating objects by different compositions of translations.

Compare the pre-image of the object to the final image just you did for . Record your observations here.

1. Based on what you have observed, make a conjecture about how the translation by the vector by the translation by the vector has the same effect as a single translation. What vector would be associated with that translation?