

Content and Language Objective:

Students will work through a variety of problems to introduce them to transformations and translations and write their own definitions of a translation.

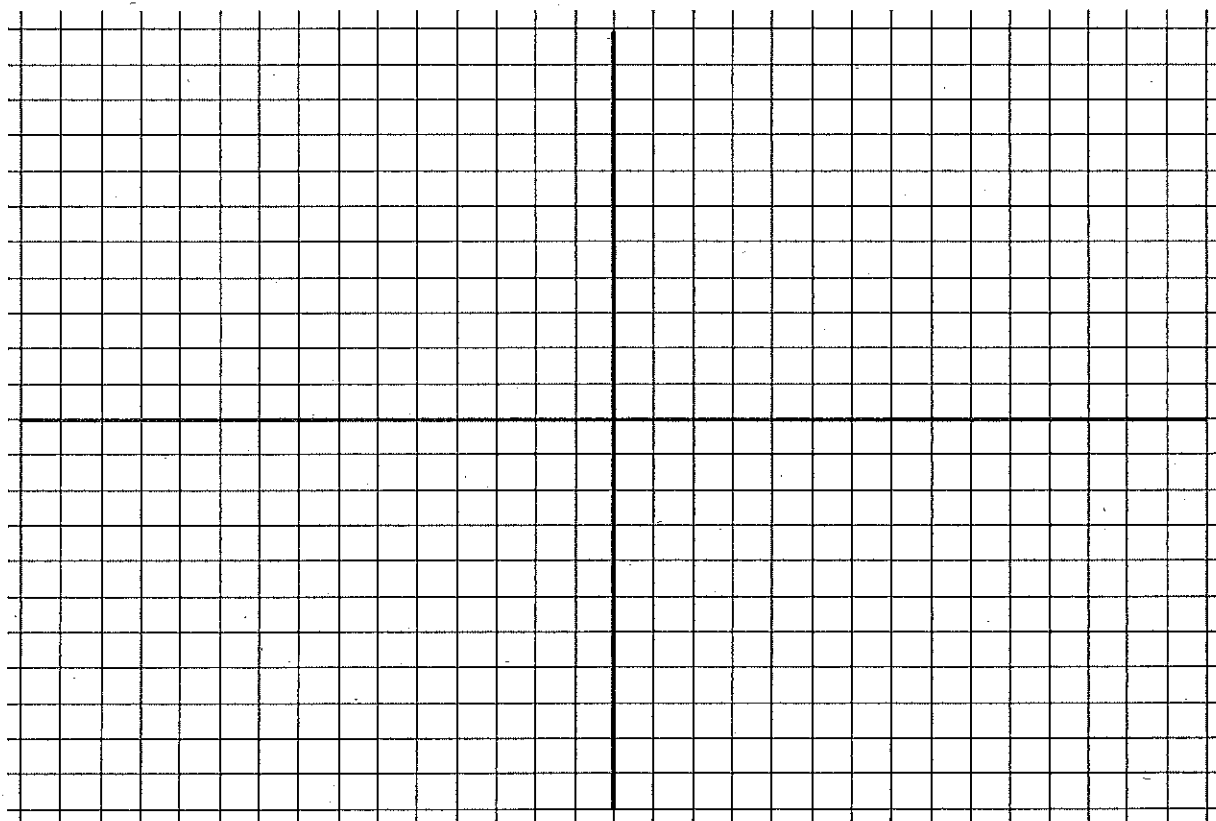
Step 1: On the given graph, plot the points $(2,1)$, $(2,4)$ and $(6,1)$. Connect the points to create a shape.

Step 2: Using the points from step 1, keep the same x-values and create new y-values by subtracting 3 from the previous y-values. Graph your new points in a new color and connect the three new points.

What happens to your graph when you do this?

Step 3: Using the points from step 1, keep the same x-values and create new y-values by adding 2 to the original y-values. Graph your new points in a new color and connect the three new points.

What happens to your graph when you do this?



Step 1: On the given graph, plot the points $(-3,-1)$, $(-2,1)$, $(1,2)$ and $(-2,-2)$. Connect the points to create a shape.

Step 2: Using the points from step 1, keep the same y-values and create new y-values by subtracting 3 from the previous x-values. Graph your new points in a new color and connect the new points.

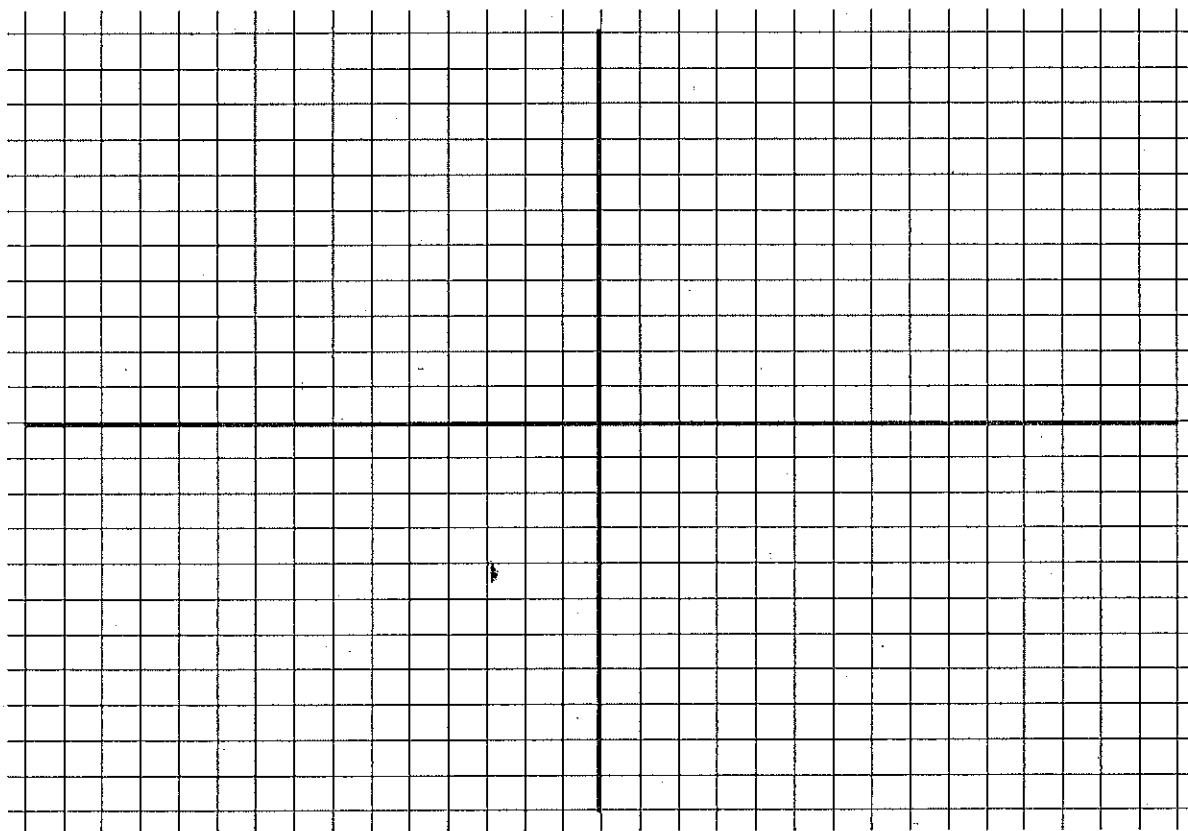
What happens to your graph when you do this?

Step 3: Using the points from step 1, keep the same y-values and create new ~~x~~-values by adding 2 to the original x-values. Graph your new points in a new color and connect the new points.

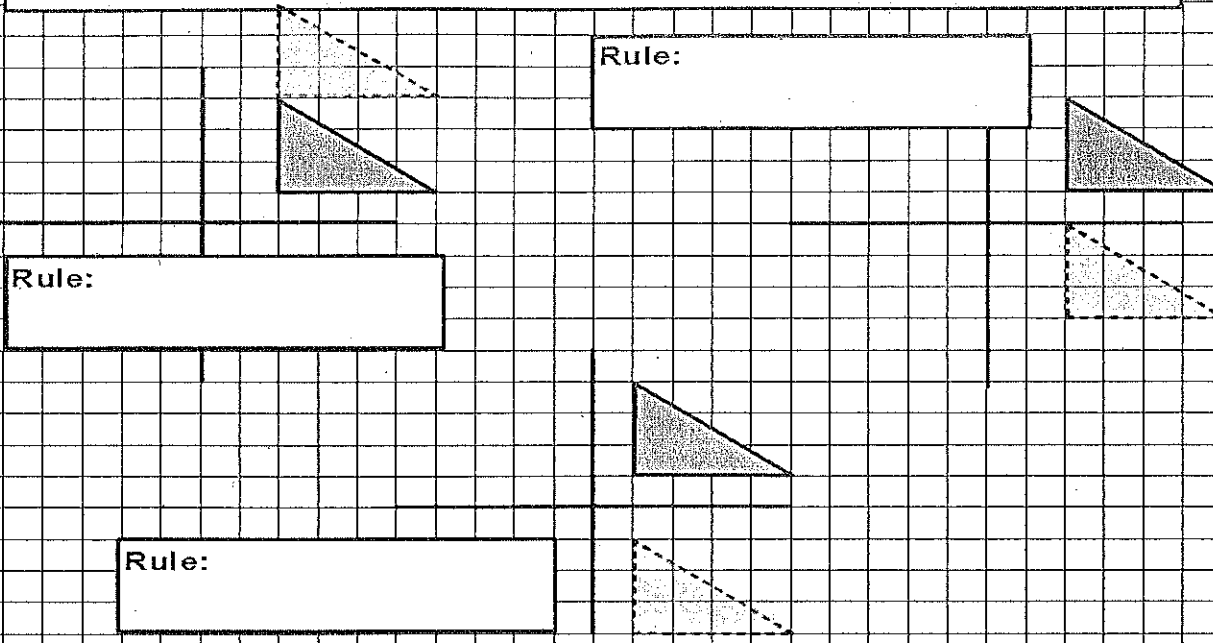
What happens to your graph when you do this?

Step 4: Using the points from step 1, subtract 1 from your original x-values and add 3 to your original y-values, plot your new points.

What happens to your graph when you do this?



Given the graphs below, write a rule for each translation. The original graph is a solid line, the new graph is a dotted line.



Given the graphs below, write a rule for each translation. The original graph is a solid line, the new graph is a dotted line.

