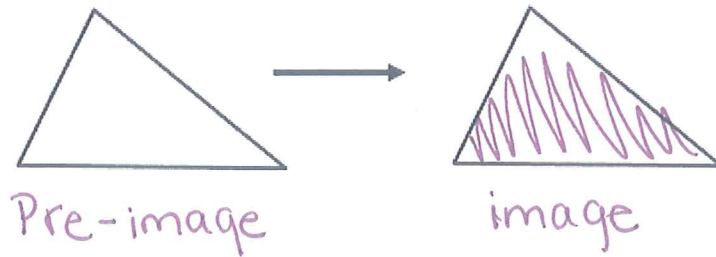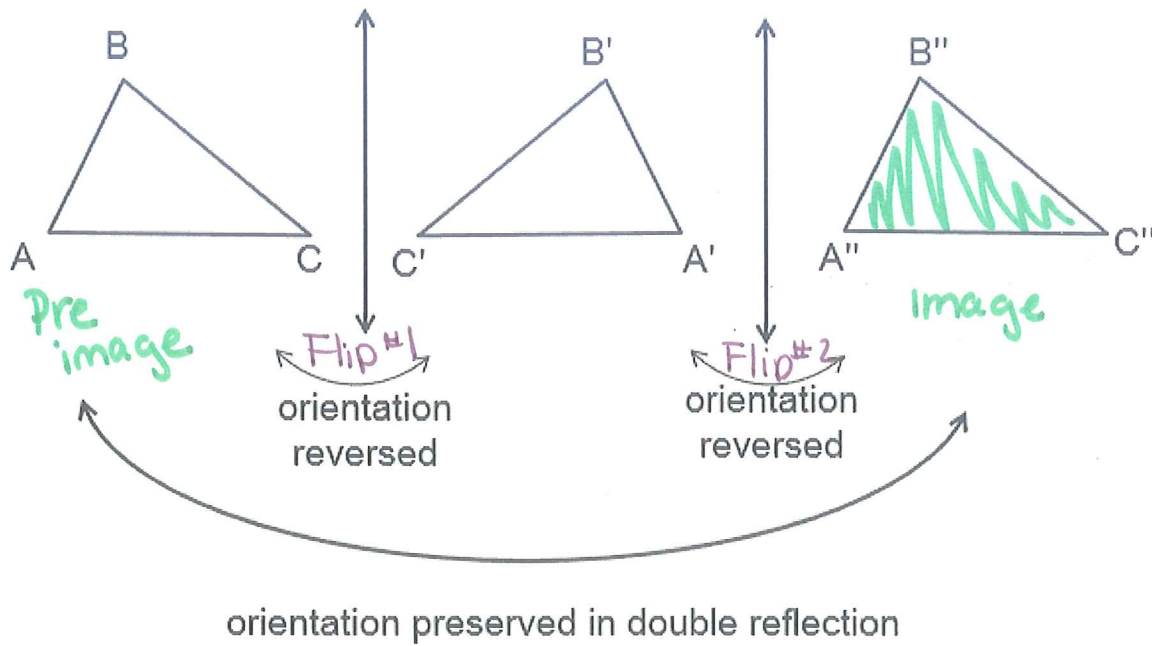# Translations Notes

Translation: Slide, does not change the orientation.
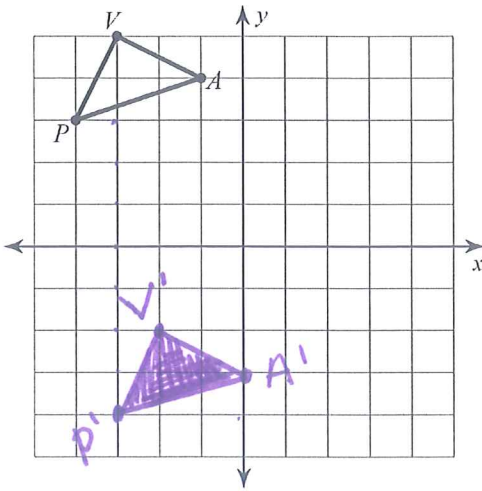

Pre-image ➝ image

A translation can be defined in terms of reflections:

B ___ B' ___ B''

A ___ C | C' ___ A' | A'' ___ C''

Pre image ___ Image

Flip #1
orientation
reversed

Flip #2
orientation
reversed

orientation preserved in double reflection

Note: The lines must be parallel.

Graph the image of the translation.

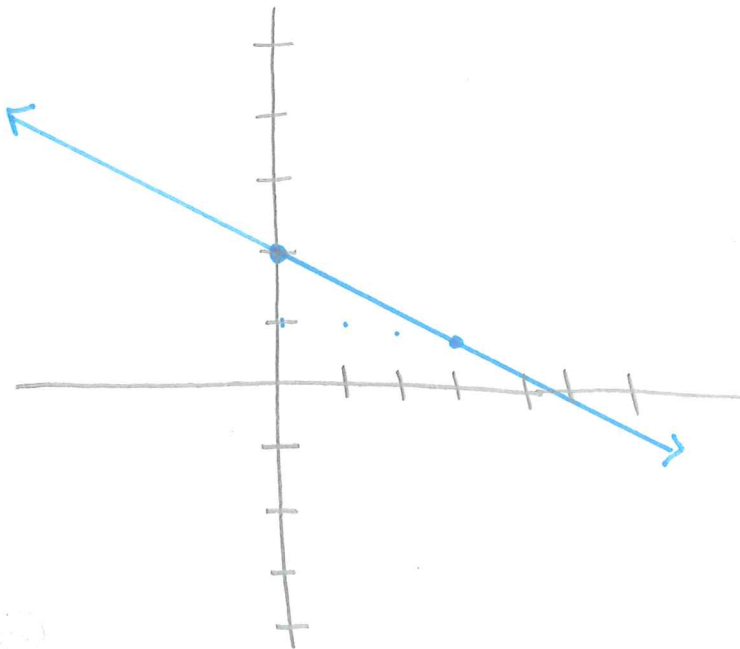1. translation: $(x, y) \rightarrow (x + 1, y - 7)$

in words: Right 1 down 7

remember → shade the image
you want
me to grade :)

2. translation: $(x, y) \rightarrow (x - 4, y + 2)$

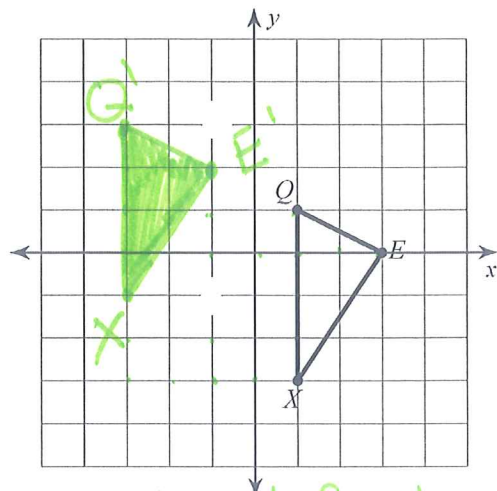In words: left 4 up 2
"Shade for a
grade" :)

Practice Graphing Lines:

Directions: Graph the following lines given the equation. If the equation is not in slope-intercept form, rewrite the equation in slope-intercept form prior to graphing. Make your own coordinate plane.

1. $y = -\frac{1}{3}x + 2$

2. $y + \frac{11}{3} = \frac{7}{3}x - \frac{1}{3}$

$\quad -\frac{11}{3} \qquad\qquad -\frac{11}{3}$

$y = \frac{7}{3}x - \frac{12}{3}$

$\boxed{y = \frac{7}{3}x - 4}$