

# 9.2 Translations

Translations: a transformation that slides a figure.

## Goals

You will draw translations in the coordinate plane.

You will describe a translation given the pre-image and image.

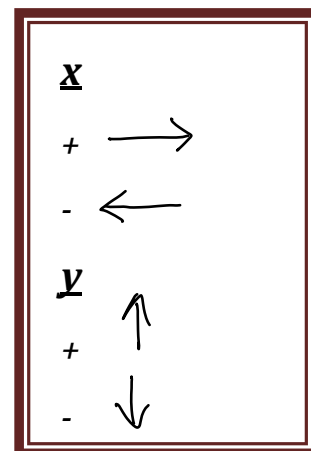
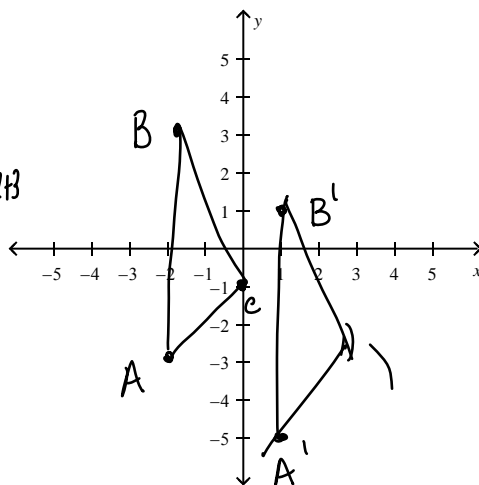
Graph  $\triangle ABC$  and its image along vector  $\langle 3, -2 \rangle$ .

$$(x, y) \rightarrow (x+3, y-2)$$

$$A(-2, -3) \rightarrow A'(1, -5)$$

$$B(-2, 3) \rightarrow B'(1, 1)$$

$$C(0, -1) \rightarrow C'(3, -3)$$



Look at the following is an animation.

- a.) Describe the translation of the raindrop from position 2 to position 3 in function notation and in words.

2 left, 3 down  
 $(x, y) \rightarrow (x-2, y-3)$

- b.) Describe the position of the raindrop from position 3 to position 4 using a translation vector and in words.

0 left, 3 down  
 $\langle 0, -3 \rangle$

