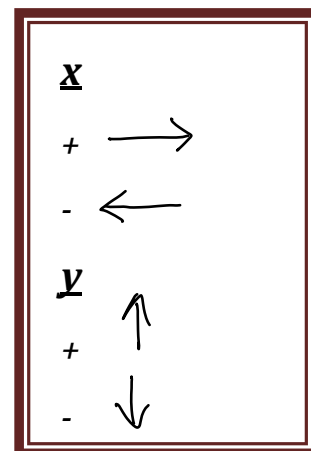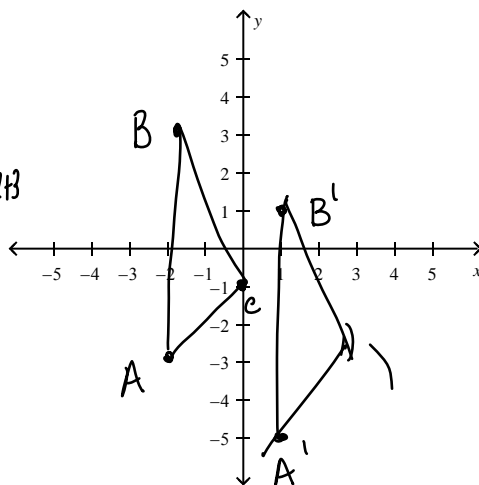# 9.2 Translations

Translations: a transformation that **Slides** a figure.

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

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

$A(-2, -3) \rightarrow -2 , -3 \quad A'(-2+3)$

$A'(1, -5)$

$B(-2, 3) \rightarrow c' \quad B'$

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

$\underline{x}$	
+	$\rightarrow$
-	$\leftarrow$
$\underline{y}$	
+	$\uparrow$
-	$\downarrow$

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.

$0 \leftrightarrow , 3$ down

$\langle 0, -3 \rangle$

(3, 5)

(1, 2)

(-1, -1) O

(-1, -4)