

Translations

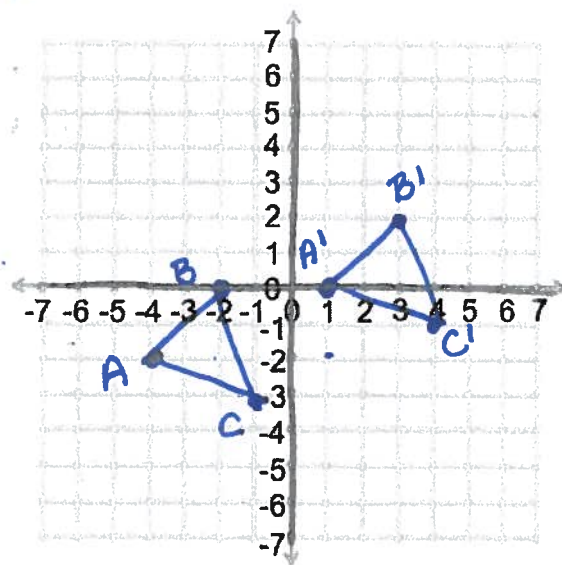
A translation is a movement in some direction. It is like you are sliding the shape from one place to another. Every point must move the same distance and in the same direction.

Here are your steps

1. Plot the points to the shape
2. Translate each point in the direction that is given.
3. Plot the new points and connect the points
4. Write down the new ordered pairs.

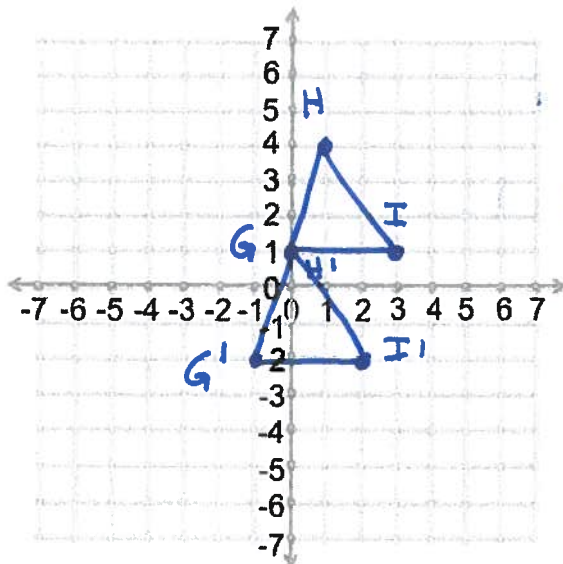
Translate $A(-4, -2)$, $B(-2, 0)$, and $C(-1, -3)$ 5 units to the right and two units up.

$$\begin{aligned} A' & (1, 0) \\ B' & (3, 2) \\ C' & (4, -1) \end{aligned}$$



Your turn: Translate $G(0, 1)$, $H(1, 4)$, $I(3, 1)$ 1 unit to the left and 3 units down

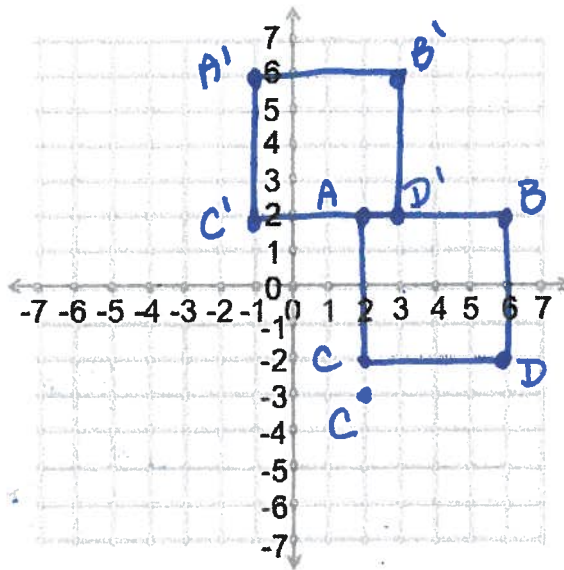
$$\begin{aligned} G' & (-2, -2) \\ H' & (0, 1) \\ I' & (2, -2) \end{aligned}$$



Another way to look it. You might see translations written this way $(x + 5, y + 2)$

This means you would go over 5 right and up 2

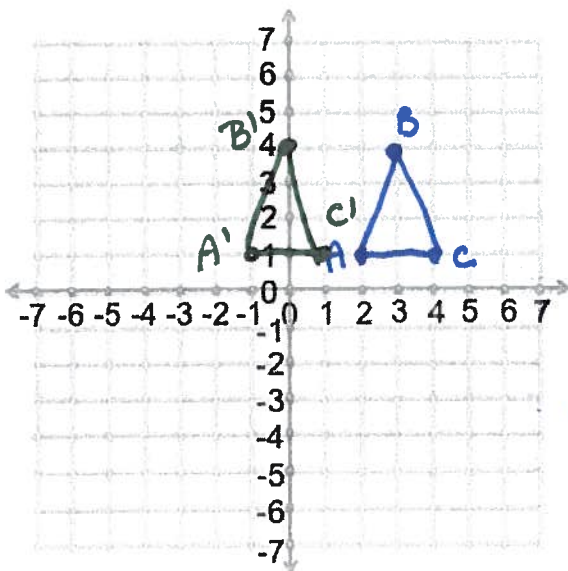
Plot the points $A(2,2)$, $B(6,2)$, $C(2,-3)$, $D(6,-2)$ and translate it $(x-3, y+4)$



left 3
up 4

$A'(-1, 6)$
 $B'(3, 6)$
 $C'(-1, 2)$
 $D'(3, 2)$

The last way to see it states:
(left + right)
Translate the shape horizontally -3



(up + down)
Translate horizontally 1 and vertically -2

