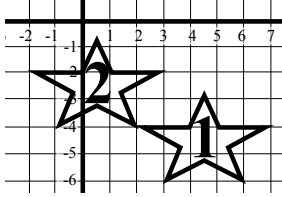


Writing Translation Rules from a Graph

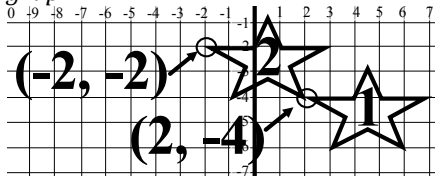
To write a translation rule from a graph, identify one point on the 1st figure, and its *matching* point on the second. Once you've done that, simply identify the *x* and *y* changes to write the translation rule.

Write the translation rule from figure1 to figure2.

EXAMPLE



First, make sure you know which figure is the starting figure (1) and which is the end (2). Once you've done that, identify one point that is **easy to use** (not a decimal) on the starting graph and its match on the finishing graph.

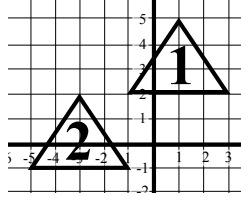


The left point (same place on both) of each star is easy to use (no decimals). Now, find the change from:

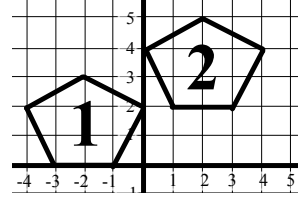
$$\begin{aligned} \text{star1}(2, -4) &\rightarrow \text{star2}(-2, -2) \\ x \text{ change: } \text{end} - \text{start} &= -2 - 2 = -4 \\ y \text{ change: } \text{end} - \text{start} &= -2 - (-4) \\ &= -2 + 4 = +2 \end{aligned}$$

$$\boxed{(x, y) \rightarrow (x - 4, y + 2)}$$

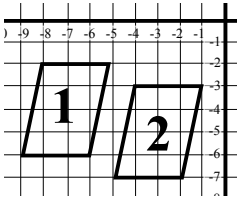
1.



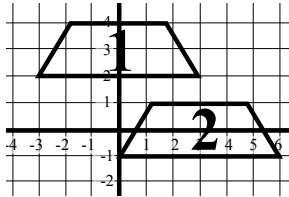
2.



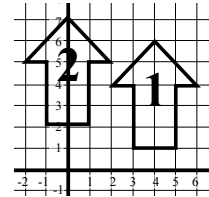
3.



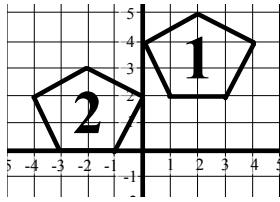
4.



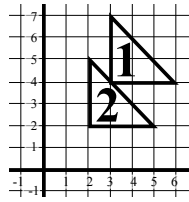
5.



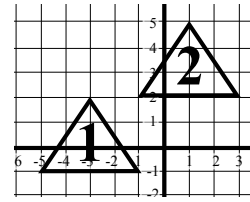
6.



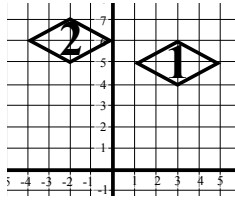
7.



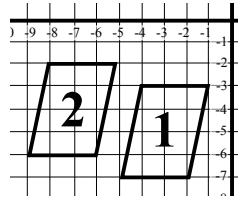
8.



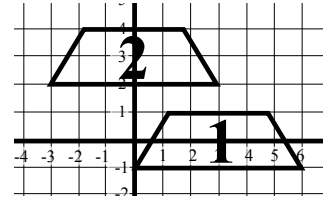
9.



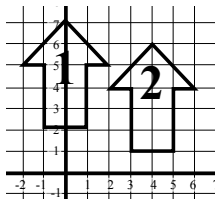
10.



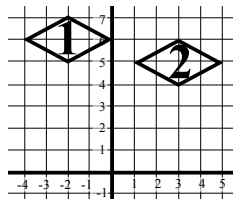
11.



12.



13.



14.

