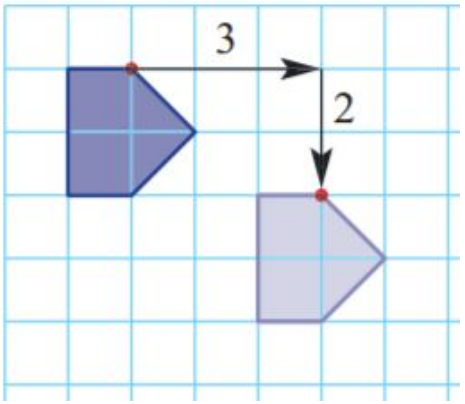
TRANSLATION

Translation is a shift of an object in a given direction by the same distance.



This shape has been translated 3 units to the right and 2 units down.

We say that the "vector" of translation is $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$ or $\langle 3, -2 \rangle$

It is also an "isometric transformation" (keeps the distances between the object unchanged).

TRANSLATION VECTORS

Like for reflection, the image of a point A is generally noted A'

More generally, if the translation vector is $\binom{a}{b}$ or $\langle a, b \rangle$

- If a is positive, the image is shifted to the right (to the left if a is negative)

- If b is positive, the image is shifted up (down if b is negative)