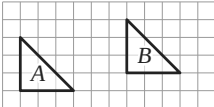
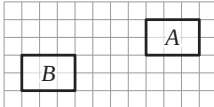
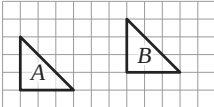
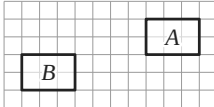


a Write 5 left and 2 up as a column vector $\begin{pmatrix} -5 \\ 2 \end{pmatrix}$ left and up as a column vector	b Translate the point (2, 3) by $\begin{pmatrix} 4 \\ 1 \end{pmatrix}$ $(6, 4)$ translating a point	c Translate the point (5, 2) by $\begin{pmatrix} -3 \\ 4 \end{pmatrix}$ $(2, 6)$ a negative component	d Translate the point (1, 2) by $\begin{pmatrix} -3 \\ -5 \end{pmatrix}$ $(-2, -3)$ into negative coordinates
e Find vector A→B  $\begin{pmatrix} 6 \\ 1 \end{pmatrix}$ a translation read off a grid	f Find vector A→B  $\begin{pmatrix} -3 \\ -2 \end{pmatrix}$ a translation left and down	g Write the vector from (1, 2) to (4, 7) as a column vector $\begin{pmatrix} 3 \\ 5 \end{pmatrix}$ the vector between two points	h Write the vector from (4, 1) to (-2, 3) as a column vector $\begin{pmatrix} -6 \\ 2 \end{pmatrix}$ between points with negatives
i A translation by $\begin{pmatrix} 2 \\ -4 \end{pmatrix}$ maps P to (3, 1). Find P $(1, 5)$ the start point from the image	j Which vector undoes a translation by $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$? $\begin{pmatrix} -3 \\ 2 \end{pmatrix}$ the inverse translation	k Translate by $\begin{pmatrix} 2 \\ 1 \end{pmatrix}$, then by $\begin{pmatrix} -5 \\ 3 \end{pmatrix}$. Write this as one vector $\begin{pmatrix} -3 \\ 4 \end{pmatrix}$ two translations as one	l A translation maps (3, 5) to (-1, 2). Where does it map (0, 0)? $(-4, -3)$ the same vector on another point

a Write 5 left and 2 up as a column vector $\begin{pmatrix} -5 \\ 2 \end{pmatrix}$ left and up as a column vector	b Translate the point (2, 3) by $\begin{pmatrix} 4 \\ 1 \end{pmatrix}$ $(6, 4)$ translating a point	c Translate the point (5, 2) by $\begin{pmatrix} -3 \\ 4 \end{pmatrix}$ $(2, 6)$ a negative component	d Translate the point (1, 2) by $\begin{pmatrix} -3 \\ -5 \end{pmatrix}$ $(-2, -3)$ into negative coordinates
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