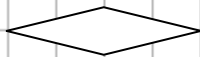
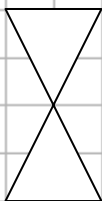


**- Basic Translations Practice #2**

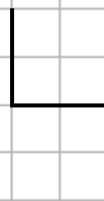
Translate  $\begin{pmatrix} 3 \\ 1 \end{pmatrix}$



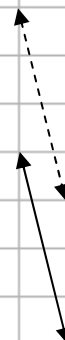
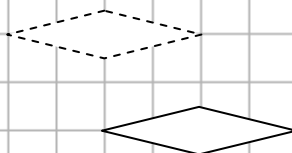
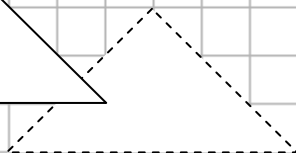
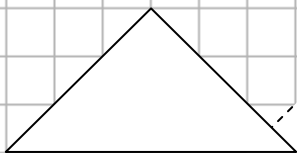
Translate  $\begin{pmatrix} 2 \\ 0 \end{pmatrix}$



Translate  $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$



Specify the translations as vectors  
(from solid to dotted)



Draw the vectors  
shown on the grid

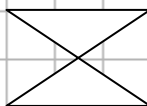
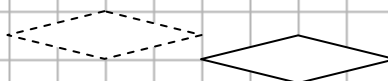
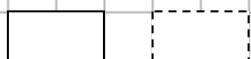
$$\begin{pmatrix} 2 \\ 5 \end{pmatrix}$$

$$\begin{pmatrix} -3 \\ 1 \end{pmatrix}$$

$$\begin{pmatrix} 2 \\ -3 \end{pmatrix}$$

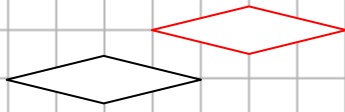
$$\begin{pmatrix} -3 \\ -3 \end{pmatrix}$$

Specify the translations as vectors  
(from solid to dotted)

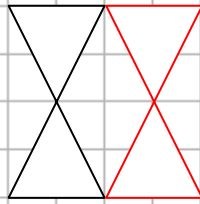


**Answers: Basic Translations Practice #2**

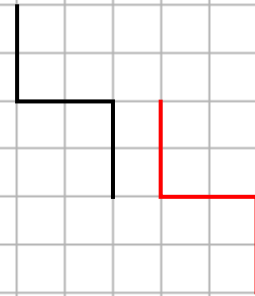
Translate  $\begin{pmatrix} 3 \\ 1 \end{pmatrix}$



Translate  $\begin{pmatrix} 2 \\ 0 \end{pmatrix}$

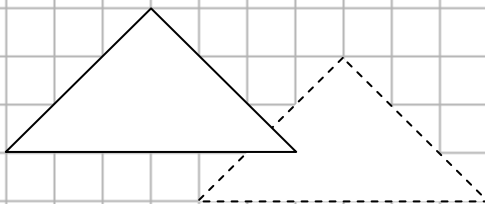


Translate  $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$

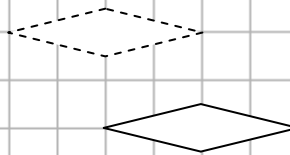


Specify the translations as vectors  
(from solid to dotted)

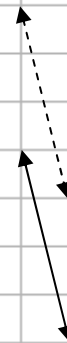
Translate  $\begin{pmatrix} 4 \\ -1 \end{pmatrix}$



Translate  $\begin{pmatrix} -2 \\ 2 \end{pmatrix}$

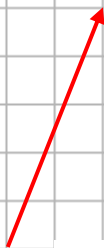


Translate  $\begin{pmatrix} 0 \\ 3 \end{pmatrix}$



Draw the vectors  
shown on the grid

$\begin{pmatrix} 2 \\ 5 \end{pmatrix}$



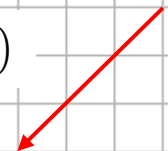
$\begin{pmatrix} -3 \\ 1 \end{pmatrix}$



$\begin{pmatrix} 2 \\ -3 \end{pmatrix}$

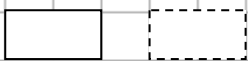


$\begin{pmatrix} -3 \\ -3 \end{pmatrix}$



In each case the vector can start anywhere on the grid, but must have the direction shown with an arrow (in the middle or at the end doesn't matter)

Specify the translations as vectors  
(from solid to dotted)



Translate  $\begin{pmatrix} 3 \\ 0 \end{pmatrix}$



Translate  $\begin{pmatrix} -4 \\ 0.5 \end{pmatrix}$



Translate  $\begin{pmatrix} -6 \\ 2 \end{pmatrix}$

