Question	Answer	Mark	Comments
1	$\begin{pmatrix}5\\-8\end{pmatrix}$	B1	

Q	Answer	Mark	Comments
2	$\begin{pmatrix}4\\-3\end{pmatrix}$	B2	B1 $\begin{pmatrix}4\\...\end{pmatrix}$ or $\begin{pmatrix}...\\-3\end{pmatrix}$ SC1 $\begin{pmatrix}-4\\3\end{pmatrix}$
	Additional Guidance		
	(4, –3) or $\begin{pmatrix}-3\\4\end{pmatrix}$		B0
	Ignore words if a vector is also seen eg1 Reflection $\begin{pmatrix}4\\-3\end{pmatrix}$ eg2 4 right 3 up and $\begin{pmatrix}4\\3\end{pmatrix}$ eg3 4 right 3 down eg4 Rotate 4 left and 3 up and $\begin{pmatrix}-4\\3\end{pmatrix}$		B2 B1 B0 SC1
	Condone any type of brackets		
	Condone missing brackets for B2 or B1 or SC1 but must have two numbers in a column		
	Condone 'fraction line' for B2 or B1 or SC1 but must have two numbers in a column		
	$\begin{pmatrix}4x\\-3y\end{pmatrix}$ or $\begin{pmatrix}x4\\-y3\end{pmatrix}$ or $\begin{pmatrix}x+4\\y-3\end{pmatrix}$ or $\begin{pmatrix}4\text{ right}\\3\text{ down}\end{pmatrix}$ or $\begin{pmatrix}4\text{ r}\\3\text{ d}\end{pmatrix}$ or $\begin{pmatrix}4\ \rightarrow\\3\ \downarrow\end{pmatrix}$		B0

Q	Answer	Mark	Comments
3(a)	Translation	B1	allow eg translate(d)
	$\begin{pmatrix} -3 \\ 0 \end{pmatrix}$	B1	
	Additional Guidance		
	Do not accept a vector given as coordinates or with missing brackets or with 'fraction line'		
	Translation from (0, 0)		B1B0
	Translation horizontally by 3		B1B0
	Translate 3 to the left and 3 down		B1B0
	Reflect by $\begin{pmatrix} -3 \\ 0 \end{pmatrix}$		B0B1
	Giving a combined transformation is B0B0 Rotate by $\begin{pmatrix} -3 \\ 0 \end{pmatrix}$ and reflect in the x-axis		B0B0
	Ignore references to movement if vector is correct eg Move to the right by $\begin{pmatrix} -3 \\ 0 \end{pmatrix}$		B0B1

Q	Answer	Mark	Comment
4	**Alternative method 1: *ABC* to *DEF***		
	Translation and $\begin{pmatrix}6\\4\end{pmatrix}$ or 6 right and 4 up	B2	B1 translation or $\begin{pmatrix}6\\4\end{pmatrix}$ or 6 right and 4 up
	Alternative method 2: *DEF* to *ABC*		
	Translation and $\begin{pmatrix}-6\\-4\end{pmatrix}$ or 6 left and 4 down	B2	B1 translation or $\begin{pmatrix}-6\\-4\end{pmatrix}$ or 6 left and 4 down
	Additional Guidance		
	Do not accept 'across' for left or right		
	Do not accept (6, 4) or $\begin{pmatrix}3\\2\end{pmatrix}$		
	Do not accept any contradicting description and vector for B2 or B1		
	Ignore fraction line shown in a correct vector		
	Accept the vector implied by addition to each coordinate oe eg Translation and *A* to *D* → −4 + 6 = 2 and 1 + 4 = 5 *B* to *E* → −5 + 6 = 1 and −3 + 4 = 1 *C* to *F* → −2 + 6 = 4 and −3 + 4 = 1		B2
	More than one transformation used		B0

Q	Answer	Mark	Comments
5	$\begin{pmatrix}3\\-7\end{pmatrix}$	B1	
	Additional Guidance		
	Condone + sign and/or fraction line eg $\begin{pmatrix}\frac{+3}{-7}\end{pmatrix}$		B1
	(3, −7)		B0