

TRANSFORMATIONS

TRUE OR FALSE

SET A

A reflection in the line $x = -1$ followed by a reflection in the line $x = 2$ has the same result as a translation of $\begin{bmatrix} 6 \\ 0 \end{bmatrix}$

SET B

A reflection in the line $y = 3$ followed by a reflection in the line $x = 2$ has the same result as a rotation of 180° clockwise about centre $(2,3)$

SET C

A reflection in the line $x = 2$ followed by an enlargement, scale factor 2, centre $(2,0)$ has the same result as an enlargement, scale factor 2 centre the origin followed by a reflection in the line $x = 2$

SET D

A reflection in the line $y = x$ followed by a reflection in the line $y = -x$ has the same result as a rotation of 180° clockwise about the origin.

SET E

An enlargement of scale factor 2 with the origin as the centre followed by a reflection in the line $y = 0$, has the same result as an enlargement of scale factor -2 centre the origin followed by a reflection in the line $x = 0$.

SET F

A translation of $\begin{bmatrix} 2 \\ 3 \end{bmatrix}$ followed by a reflection in the line $y = 3$ has the same result as a reflection in the line $y = 0$ followed by a translation of $\begin{bmatrix} 2 \\ 3 \end{bmatrix}$

SET G

A translation of $\begin{bmatrix} 4 \\ 1 \end{bmatrix}$ followed by a reflection in the line $x = 3$ has the same result as a rotation of 180° about centre $(1,2)$

TRANSFORMATIONS TRUE OR FALSE ANSWERS

SET A

A reflection in the line $x = -1$ followed by a reflection in the line $x = 2$ has the same result as a translation of $\begin{bmatrix} 6 \\ 0 \end{bmatrix}$ **TRUE**

SET B

A reflection in the line $y = 3$ followed by a reflection in the line $x = 2$ has the same result as a rotation of 180° clockwise about centre $(2,3)$ **TRUE**

SET C

A reflection in the line $x = 2$ followed by an enlargement, scale factor 2, centre $(2,0)$ has the same result as an enlargement, scale factor 2 centre the origin followed by a reflection in the line $x = 2$ **FALSE**

SET D

A reflection in the line $y = x$ followed by a reflection in the line $y = -x$ has the same result as a rotation of 180° clockwise about the origin. **TRUE**

SET E

An enlargement of scale factor 2 with the origin as the centre followed by a reflection in the line $y = 0$, has the same result as an enlargement of scale factor -2 centre the origin followed by a reflection in the line $x = 0$. **TRUE**

SET F

A translation of $\begin{bmatrix} 2 \\ 3 \end{bmatrix}$ followed by a reflection in the line $y = 3$ has the same result as a reflection in the line $y = 0$ followed by a translation of $\begin{bmatrix} 2 \\ 3 \end{bmatrix}$ **TRUE**

SET G

A translation of $\begin{bmatrix} 4 \\ 1 \end{bmatrix}$ followed by a reflection in the line $x = 3$ has the same result as a rotation of 180° about centre $(1,2)$ **FALSE**