

<h2 style="margin: 0;">Sort It Out</h2>	<h2 style="margin: 0;">Reflection Matrices</h2>
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Sort each statement into the correct group.

1	The linear transformation is $\begin{pmatrix} x \\ y \end{pmatrix} \mapsto \begin{pmatrix} y \\ x \end{pmatrix}$	2	The transformation matrix is $\begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix}$
3	The line of invariant points is $x = 0$	4	The linear transformation is $\begin{pmatrix} x \\ y \end{pmatrix} \mapsto \begin{pmatrix} -y \\ -x \end{pmatrix}$
5	The transformation matrix is $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$	6	The point (2, 3) maps to the point (-2, 3)
7	The point (2, 3) maps to the point (-3, -2)	8	The linear transformation is $\begin{pmatrix} x \\ y \end{pmatrix} \mapsto \begin{pmatrix} -x \\ y \end{pmatrix}$
9	The line of invariant points is $y = -x$	10	The transformation matrix is $\begin{pmatrix} -1 & 0 \\ 0 & 1 \end{pmatrix}$
11	The point (2, 3) maps to the point (2, -3)	12	The line of invariant points is $y = 0$
13	The transformation matrix is $\begin{pmatrix} 0 & -1 \\ -1 & 0 \end{pmatrix}$	14	The line of invariant points is $y = x$
15	The linear transformation is $\begin{pmatrix} x \\ y \end{pmatrix} \mapsto \begin{pmatrix} x \\ -y \end{pmatrix}$	16	The point (2, 3) maps to the point (3, 2)

A	Reflection in the y -axis	B	Reflection in the x -axis
C	Reflection in the line $y = x$	D	Reflection in the line $y = -x$