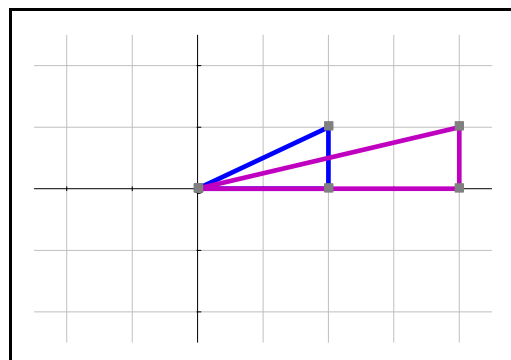
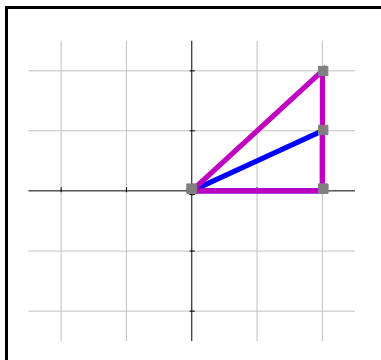
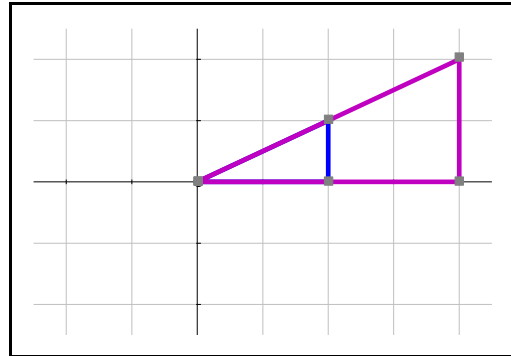
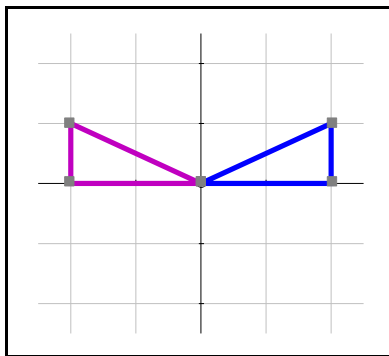
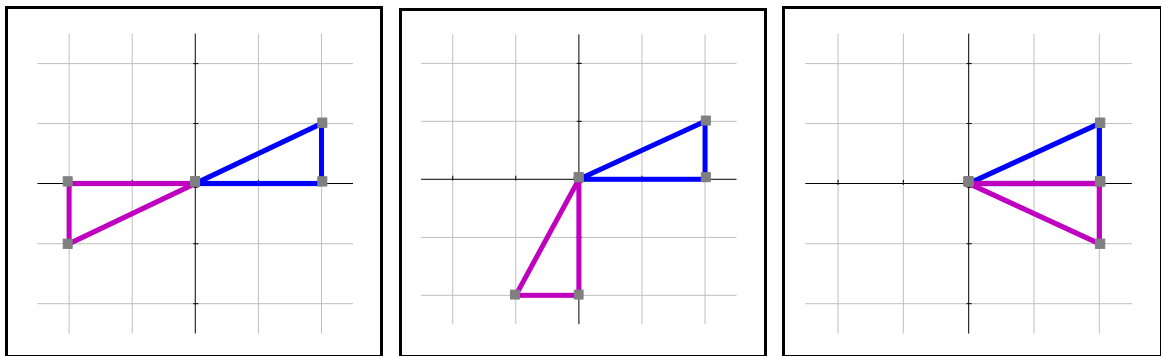
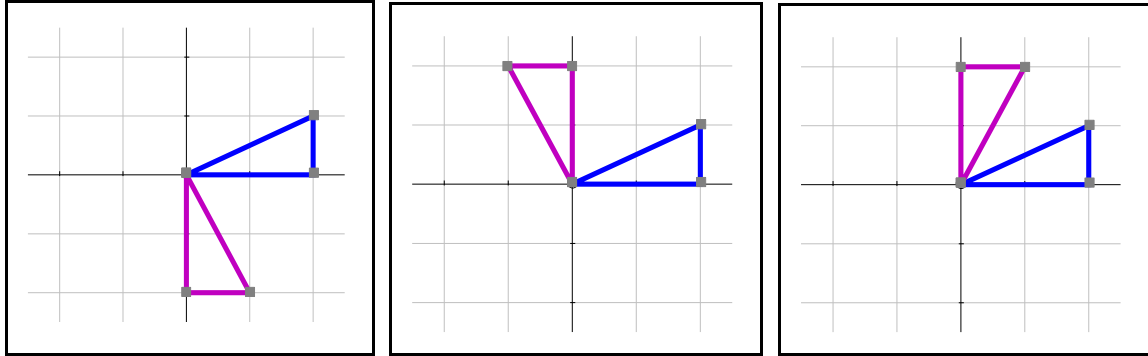


Matrix matchings

Cut out the diagrams, descriptions of transformations and matrices and match up each diagram with the appropriate transformation and the matrix which describes it. In the diagrams, the blue triangle is the object and the pink one is the image.



Matrix matchings

| | |
|--|--|
| Rotation by 90° clockwise | $\begin{pmatrix} 1 & 0 \\ 0 & 2 \end{pmatrix}$ |
| Rotation by 90° anticlockwise | $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$ |
| Reflection in y -axis | $\begin{pmatrix} 2 & 0 \\ 0 & 1 \end{pmatrix}$ |
| Reflection in x -axis | $\begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix}$ |
| Reflection in the line $y = x$ | $\begin{pmatrix} 2 & 0 \\ 0 & 2 \end{pmatrix}$ |
| Reflection in the line $y = -x$ | $\begin{pmatrix} -1 & 0 \\ 0 & 1 \end{pmatrix}$ |
| Rotation by 180° | $\begin{pmatrix} -1 & 0 \\ 0 & -1 \end{pmatrix}$ |
| Enlargement with scale factor 2, centre the origin | $\begin{pmatrix} 0 & -1 \\ 1 & 0 \end{pmatrix}$ |
| Stretch with scale factor 2, in the direction of the x -axis | $\begin{pmatrix} 0 & -1 \\ -1 & 0 \end{pmatrix}$ |
| Stretch with scale factor 2, in the direction of the y -axis | $\begin{pmatrix} 0 & 1 \\ -1 & 0 \end{pmatrix}$ |