**7B Reflections & Rotations**

**(0,1)**

**(1,0)**

1. Describe fully the geometrical transformation represented by the matrix:

$$\left[\begin{matrix}3&0\\0&3\end{matrix}\right]$$

$$\left[\begin{matrix}-1&0\\0&-1\end{matrix}\right]$$

$$\left[\begin{matrix}0&-1\\-1&0\end{matrix}\right]$$

1. Find a matrix to represent the transformation:
2. ‘Reflection in the y-axis’
3. ‘Enlargement, centre (0,0), scale factor 2’
4. ‘Rotation of 45° anticlockwise about (0,0)’

As a general rule, the matrix representing a rotation of angle $θ$ anticlockwise about the origin is:

Final notes:

 Invariant point

Invariant Lines