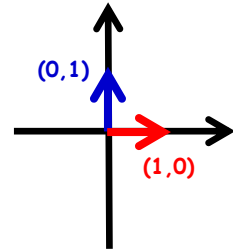


7B Reflections & Rotations



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

a)

$$\begin{bmatrix} 3 & 0 \\ 0 & 3 \end{bmatrix}$$

b)

$$\begin{bmatrix} -1 & 0 \\ 0 & -1 \end{bmatrix}$$

c)

$$\begin{bmatrix} 0 & -1 \\ -1 & 0 \end{bmatrix}$$

2. Find a matrix to represent the transformation:

a) 'Reflection in the y-axis'

b) 'Enlargement, centre (0,0), scale factor 2'

c) '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