**7A Introduction to Linear Transformations with Matrices**

Linear Transformations

1. The three transformations **S**, **T** and **U** are defined below. Find the image of the point (2,3) under each of these transformations. State whether each is a *linear* transformation.

Matrices can be used to represent linear transformations:

1. Find matrices to represent these linear transformations:
2. The square S has coordinates (1,1), (3,1), (3,3) and (1,3).

Find the coordinates of the vertices of the image of S after the transformation given by the matrix: