**Matrices Problem Sheet**

**MATH1110** [**blathnaid.sheridan@dit.ie**](mailto:blathnaid.sheridan@dit.ie)

Q1]

Carry out the following matrix calculations (if they can be calculated):

1. A+B
2. 2A+3B
3. A+2C
4. 4B-3A

Q2]



Q3] Carry out the following matrix multiplication if it can be done.





1. 





Q4]



Is equivalent to what matrix equation?

Q5] Find the inverse of the matrix . Hence or otherwise, solve the following system of equations

Q6]



Q7]

A rectangle having vertices in homogenous coordinates is represented by the matrix .

1. Find the image of this rectangle under the rotation of the plane through an angle of clockwise about the origin.
2. Find the image of this rectangle under the rotation of the plane through an angle of anticlockwise about the origin.
3. Find the image of this rectangle under the rotation of the plane through an angle of clockwise about the origin.