**Lecture 3**

1. Matrices are given a . Calculate:

a)

b)

c)

2. Matrices are given a . Calculate:

a)

b)

3. Compute the product of matrices a .

4. Determine the rank of the following matrices and decide which are regular (non-singular) and which are singular.

a) b)

c) d)

5. Calculate inversion matrices for following matrices:

a)

b)

c)

6. Solve the matrix equations, where , , .

a)

b)

c)