# Matrices - Questions

1. Let .

(a) What is the order of ?

(b) What is the transpose of ?

(c) Re-write as a partitioned matrixformed of two column vectors.

2. Let .

(a) Write down the main diagonal of as a column vector.

(b) Calculate the trace of .

3. Let Calculate:

(a) .

(b) .

(c) .

(d) .

4. Calculate:

(a) .

(b) .

5. Let .

(a) What is the order of the matrix ?

(b) Calculate .

6.

(a) What is the order of the matrix ?

(b) Calculate .

(c) Calculate .

7. Let .

(a) Calculate the determinant of .

(b) Calculate the inverse of .

(c) Check your calculation in (b) by calculating .

(d) Is idempotent?

(e) Is orthogonal?