**HUDM6122 Assignment 1. Manipulating matrices**

NOTE: Choose EITHER SPSS or R and do the assignment below with that package’s matrix operations. Print your output as a PDF (or R markdown) file that includes your name and UNI, plus at least one visible COMMENT or TITLE. The file name should begin with “Assn1\_<myname>…”, where <myname> refers to your name in the format (first name initial followed by last name), e.g. “Assn1\_JCorter\_output.pdf”.

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Define matrices (vectors) as follows.

C =

Note that Ik refers to a *k x k* identity matrix.

Report the following results:

1. AB

2. 5\*B; B\*I2

3.

4. C + C’

5. trace(C)

6. rank(A) Explain why A has the rank that it does.

7. rank(C) Explain why C has the rank that it does.

8. determinant(C)