

Name: _____
Student ID: _____

Quiz 1

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

Question 1. Consider the matrices:

$$A = \begin{bmatrix} 2 & 3 & 1 \\ 4 & 0 & 0 \\ 0 & -1 & 2 \end{bmatrix}, B = \begin{bmatrix} 1 & 10 & 8 \\ 2 & 0 & 7 \\ 2 & -1 & 2 \end{bmatrix}, C = \begin{bmatrix} 2 & 3 \\ 0 & -1 \\ 3 & 3 \end{bmatrix}, D = \begin{bmatrix} 2 & -1 & 2 \\ 3 & 0 & 1 \end{bmatrix}.$$

Compute the following (*where possible*).

- (1 mark) $A - B$
- (1 mark) $C - D$
- (1 mark) BD
- (3 marks) $2\text{tr}(3CD)$
- (4 marks) $CC^t - I + A^2$