

## Quiz 4

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 matrix:

$$A = \begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix}, B = \begin{bmatrix} j & k & l \\ m & n & o \\ p & q & r \end{bmatrix}, C = \begin{bmatrix} 2 & 1 & -2 \\ -3 & 2 & 1 \\ 5 & -2 & -1 \end{bmatrix} D = \begin{bmatrix} -3 & -3 & 6 \\ 2 & 3 & -4 \\ 5 & 8 & -10 \end{bmatrix}$$

- (3 marks) If  $\det(A) = -7$  and  $\det(B) = \frac{1}{3}$  then compute  $\det((2B)^t A^2 (3ABA)^{-1})$ .
- (2 marks) Compute  $\det(D)$ .
- (5 marks) Compute  $\det(C)$  using elementary operations.