

Quiz 6

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. (5 marks) If

$$A = \begin{bmatrix} 2 & 1 & -2 & 1 & 0 \\ 4 & 3 & 1 & 0 & 0 \\ 0 & 0 & 5 & -2 & 1 \\ 0 & 0 & 2 & -5 & 3 \\ 0 & 0 & 0 & 0 & 2 \end{bmatrix}$$

then compute $\det(A)$ using elementary operations.

Question 2. (5 marks) If

$$A = \begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix}, B = \begin{bmatrix} 2c & -b & a+b \\ 2f & -e & d+e \\ 2i & -h & g+h \end{bmatrix}$$

and $\det(A) = \frac{1}{\sqrt{2}}$ then compute $\det(B)$.