

B14.

MATH 1300: Test #2

Name _____

Student Number _____

1. Use row reduction to find the inverse of the matrix $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 1 \\ 1 & 1 & 2 \end{bmatrix}$. (No marks will be given if other methods are used.)

2. Suppose A is a 3×3 matrix such that $A^2 + 3A = I$ (where, as usual, I is the identity matrix of the same size), and suppose $(A + 3I)^T = B$. Find A^{-1} in terms of B .

3. Compute the determinant of $\begin{bmatrix} 1 & 1 & 1 \\ 2 & 1 & 0 \\ 1 & 3 & 1 \end{bmatrix}$.