Math 220 Spring 2024 Assessment 4a Dusty Wilson

No work = no credit

The total number of Dirichlet's publications is not large: jewels are not weighed on a grocery scale. Carl Friedrich Gauss (1777-1855) German mathematician

1. (4 points) Find the determinant of $A = \begin{bmatrix} 3 & 2 \\ 4 & 5 \end{bmatrix}$. Is A invertible? Why or why not.

2. (4 points) Find the determinant of $B = \begin{bmatrix} 3 & 2 & 4 \\ 1 & 5 & 1 \\ 2 & -3 & 3 \end{bmatrix}$. Is *B* invertible? Why or why not.

3. (4 points) Find the determinant of $C = \begin{bmatrix} 1 & 2 & 3 & 4 \\ 0 & 0 & 5 & 0 \\ 4 & 3 & 2 & 1 \\ 0 & 0 & 3 & -2 \end{bmatrix}$. Is *B* invertible? Why or why not.