

1. [6pts] Let $A = \begin{bmatrix} 1 & -2 & 1 & -1 \\ 2 & -4 & 3 & 2 \\ 5 & -11 & 2 & -6 \\ 1 & -1 & 1 & 3 \end{bmatrix}$. Use row operations to compute $\det(A)$.

2. [4pts] Find 2×2 matrices A and B such that $\det(A + B) \neq \det(A) + \det(B)$.