



LINEAR ALGEBRA
SPRING 2024

ASSIGNMENT 11
DUE APRIL 3

Exercise 1. Use cofactors to compute the determinant

$$\begin{vmatrix} 1 & -2 & 5 & 2 \\ 0 & 2 & 3 & 0 \\ 2 & -6 & -7 & 5 \\ 5 & 0 & 4 & 4 \end{vmatrix}$$

Exercise 2. Use cofactors to compute the determinant

$$\begin{vmatrix} 4 & 0 & -7 & 3 & -5 \\ 0 & 0 & 2 & 0 & 0 \\ 7 & 3 & -6 & 4 & -8 \\ 5 & 0 & 5 & 2 & -3 \\ 0 & 0 & 9 & -1 & 2 \end{vmatrix}$$

Exercise 3. If

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

show that $\det A \neq 0$ and use the cofactor formula to compute A^{-1} .