

**MATH 2130 LINEAR ALGEBRA**  
**HOMEWORK 13**  
**DUE 2025 NOVEMBER 30**

PROBLEM 1 (P7)

Use any method we have seen to compute

$$\begin{vmatrix} 2 & 1 & 3 \\ 0 & 1 & 0 \\ 5 & 0 & 2 \end{vmatrix}.$$

PROBLEM 2 (P7)

Use any method we have seen to compute

$$\begin{vmatrix} 4 & 2 & 1 \\ 1 & 3 & -1 \\ 3 & 1 & 0 \end{vmatrix}.$$

PROBLEM 3 (P7)

Use any method we have seen to compute

$$\begin{vmatrix} 1 & 3 & 7 \\ 2 & 1 & 3 \\ 0 & 5 & 11 \end{vmatrix}.$$

PROBLEM 4 (P7)

Use any method we have seen to compute

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

PROBLEM 5 (P7)

Use any method we have seen to compute

$$\begin{vmatrix} 1 & 1 & 1 & -1 \\ 1 & 2 & 0 & 0 \\ 1 & 3 & 2 & -2 \\ 1 & 4 & 3 & 0 \end{vmatrix}.$$