Quiz 5 for MTH 222D (Fall2022)

due on Wednesday, October 19th

Find bases for the null space and column space for each matrix.

1. $\begin{pmatrix} 1 & 1 & -1 & 3 \\ 1 & 2 & 1 & 2 \\ 2 & 5 & 4 & 3 \\ 4 & 6 & 0 & 10 \end{pmatrix}$.

2. $\begin{pmatrix} -2 & -7 & 17 & -30 \\ 6 & 4 & 0 & 22 \\ 8 & 5 & 1 & 28 \\ 13 & 7 & 5 & 41 \end{pmatrix}$.

3. $\begin{pmatrix} 1 & -1 & 0 & 3 \\ -1 & 1 & 3 & -9 \\ 1 & -1 & 1 & 1 \\ 2 & -2 & -1 & 8 \end{pmatrix}$.

4. $\begin{pmatrix} -6 & 6 & 1 & -3 \\ -3 & 3 & 7 & 8 \\ -4 & 4 & -6 & -11 \\ 6 & -6 & 3 & 4 \end{pmatrix}$.