Quiz 10

For the matrix below, find its LU factorization by following the indicated steps.

$$A = \begin{bmatrix} 2 & 4 & 5 & -2 \\ -2 & -1 & -7 & 3 \\ 6 & 12 & 10 & -4 \\ -4 & -5 & 3 & -8 \end{bmatrix}$$

1. (7 points) Compute the matrices L and U

2. (3 points) Verify that the matrices L and U you found in part 1 satisfy $A = L \cdot U$