

1. Use the method of Gaussian elimination to find vector  $x$  for the system of linear equations  $Ax=b$  for

$$A = \begin{bmatrix} 6 & 4 & 1 \\ 1 & 2 & 3 \\ 2 & 5 & 1 \end{bmatrix}, b = \begin{bmatrix} 4 \\ 5 \\ -1 \end{bmatrix}.$$