

TAKE $A = \begin{bmatrix} -5 & 2 & -1 \\ 1 & 0 & 3 \\ 3 & 1 & 6 \end{bmatrix}$

1. LARGEST ENTRY ON DIA?

$$A = \left(\begin{bmatrix} -5 & 2 & -1 \\ 1 & 0 & 3 \\ 3 & 1 & 6 \end{bmatrix} \right)$$

$$\sim \left(\begin{bmatrix} A[0,0], A[0,1], \dots \\ A[1,0], A[1,1], \dots \end{bmatrix} \right)$$

SCAN THROUGH ENTRIES
FIRST LOOK AT COL 1
FOR n IN RANGE(3)

2. SUB DIA ZERO?

FOR n IN RANGE(3)

IF $\text{ABS}(A[n,0]) > 1e-10$

*(DETERMINE M_{ij} SUCH THAT
 $A_{ij} \neq 0 \rightarrow A_{ij} = 0$)

IF $A[n,0] > A[n-1,0]$
 $A[n-1,0] = A[n,0]$
 $A[n,0] = A[n-1,0]$