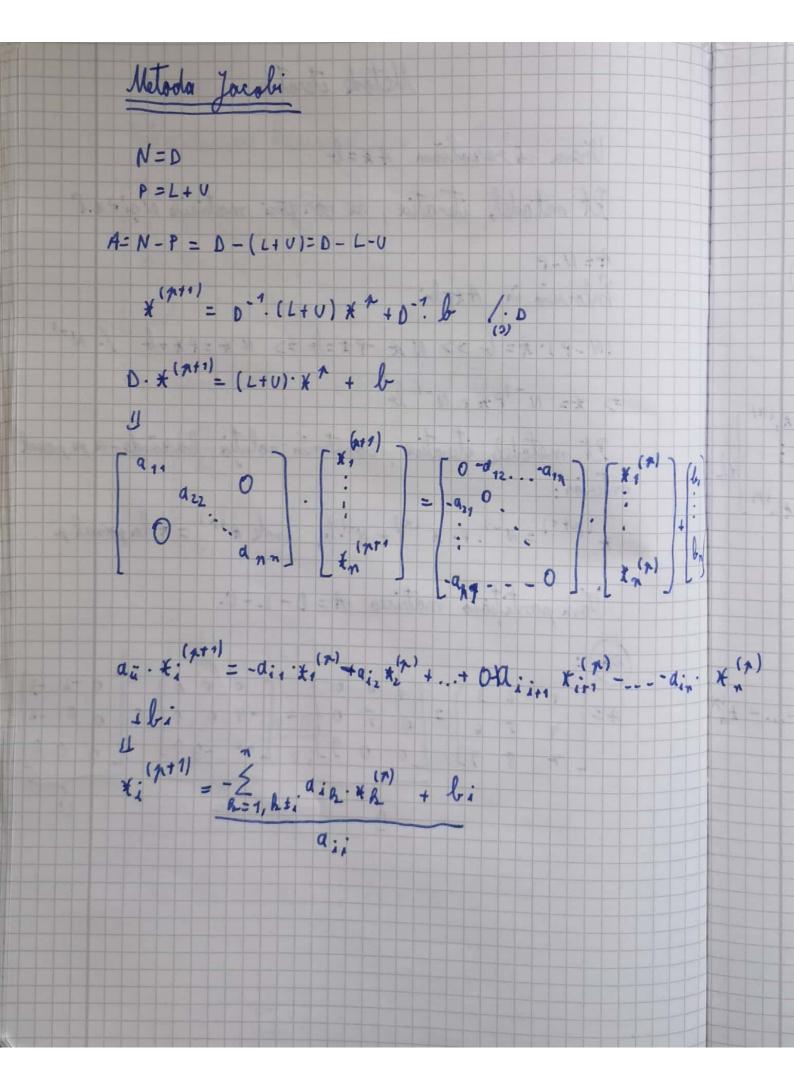
Metode iterative Veren så rerolvan 4 x = b It netodele iterative, se vorgosi matricile N si Pa. i A= N-P Informin Ax=lo: (N-P). \*= 6 >> N x -P\*= 6 => N x = P\*+6 /. N-1 => X= N-1P\*+ N-1 le It metodele iterative construin solution baronder-re pe pasul anterios. \* (p+1) = N-1. P. \* (p) + N-1. b, unde \* (p) = \* la pasul p Von partitiono matrices A = D - L - U. 



(a) Revolvan cu Jacobi

$$A = \begin{bmatrix} 2 & 1 & -1 \\ 1 & 2 & 1 \end{bmatrix} \qquad b = \begin{bmatrix} 1 \\ 2 \\ 3 \end{bmatrix}$$

Romin cu o aproximații initială a soluței:

$$f_{1} = 0, f_{2} = 0, f_{3} = 0$$

$$f_{1} = -(1 \cdot 0 + (-1) \cdot 0) + 1 = 1$$

$$f_{2} = -(1 \cdot 0 + (-1) \cdot 0) + 2 = 1$$

$$f_{3} = -(1 \cdot 0 + 2 \cdot 0) + 3 = 3$$

$$f_{4} = -(1 \cdot 1 + (-1) \cdot 3) + 1 = 3$$

$$f_{2} = -(1 \cdot 1 + (-1) \cdot 3) + 1 = 3$$

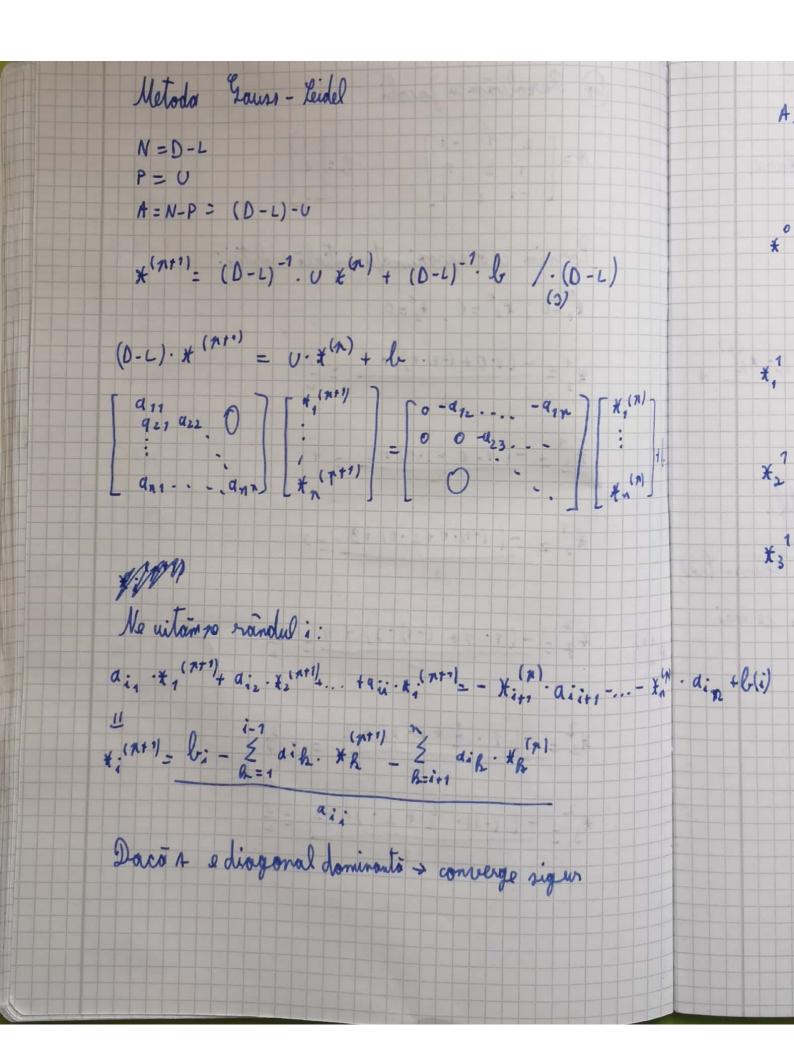
$$f_{3} = -(1 \cdot 1 + (-1) \cdot 3) + 1 = 3$$

$$f_{4} = -(1 \cdot 1 + (-1) \cdot 3) + 1 = 3$$

$$f_{5} = -(1 \cdot 1 + (-1) \cdot 3) + 1 = 3$$

$$f_{7} = -(1 \cdot 1 + (-1) \cdot 3) + 1 = 3$$

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Metodo suprarelazarii (SOR)
Alagem un w $\epsilon(0,2)$ care s. n factor de relaxare
$N(w) = (1-w)N = \frac{1}{w}D - L$ $P(w) = P - wN = (\frac{1}{w} - 1)D + V$
1.1 (nr) 1 (nr)
+ (1-w) *;(n)
Wen fix yours- Leidel.
It a face algoritmul in Octave over lix yours- list
ios dupa ce s-a colculat *(i), pur si simple se mai
$X(i) = w \cdot X(i) + (1-w) \cdot Xo(i)$
SOR = Luccessive Overralogation
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