$$\begin{bmatrix} 4 & -1 & 0 \\ -1 & 4 & -1 \\ 0 & -1 & 4 \end{bmatrix} x = \begin{bmatrix} 2 \\ 4 \\ 10 \end{bmatrix}$$

ANALOGIZE EXAMPLE

$$x_i^{(k+1)} = \frac{1}{a_{ii}}\left[b_i - \sum_{j=1}^{i-1} a_{ij} x_j^{(k)} - \sum_{j=i+1}^{n} a_{ij} x_j^{(k)} \right]$$

for python

$x_i^{(k+1)} = x[i, \emptyset]$

$a_{ii} = A[i, i]$

$b_i = b[i, \emptyset]$

$a_{ij} = [i, j]$

$\left(\sum_{j=1}^{i-1} - \sum_{j=i+1}^{n} \right) x_j^{(k)} = x k \emptyset$

$$x[i, \emptyset] = \frac{1}{A[i,i]}\left(b[i, 0] - A[i, j]^{*} x k \emptyset[i, 1] - A[i,i \right.$$

$$x_1^{(k+1)} = \frac{1}{a_{11}}\left(b_1 - a_{12} x_2^{(k)} - a_{13} x_3^{(k)}\right)$$

$$x_2^{(k+1)} = \frac{1}{a_{22}}\left(b_2 - a_{21} x_1^{(k)} - a_{23} x_3^{(k)}\right)$$

$$x_3^{(k+1)} = \frac{1}{a_{33}}\left(b_3 - a_{31} x_1 - a_{32} x_2^{(k)}\right)$$

$k = \emptyset'(\emptyset)$

$i = 1(\emptyset)$

$j = 1(\emptyset)$

WANT

$$x_1^{(k+1)} = \frac{1}{a_{11}}\left(b_1 - a_{12} x_2^{(k)} - a_{13} x_3^{(k)}\right)$$

$x\emptyset$ ← JUST MAKE $x\emptyset = \emptyset \ldots$ OUT 'XØ' →

$x[0, 0] = \frac{1}{A[0,0]}\left(b[0, 0] - A[0, \;] x k \emptyset[0, 0]\right.$

$\frac{1}{a_{11}}\left(b_1 \quad - a_{11}\right.$

$$\begin{bmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{bmatrix} \begin{bmatrix} x_1^{(k)} \\ x_2^{(k)} \\ x_3^{(k)} \end{bmatrix} = \begin{bmatrix} b_1 \\ b_2 \\ b_3 \end{bmatrix}$$

ANTI
CANCEL 2017 SUMMER GRAD XP
MASTER PHYSICAL THEORY
MISSED PAYMENT

MAKE CALL 2 MCC

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