Matrix Problem Report

Generated on: December 21, 2024

Matrix (A):
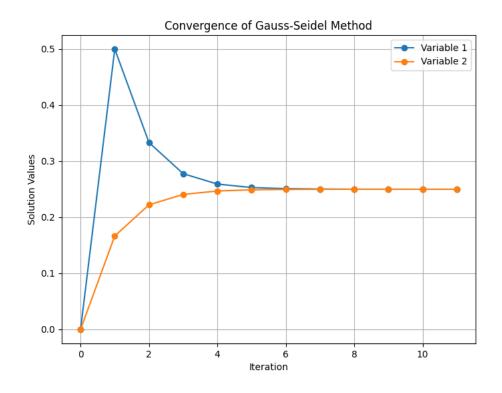
$$\begin{bmatrix} 2.0 & 2.0 \\ 1.0 & 3.0 \end{bmatrix}$$

Vector (b):

$$\begin{bmatrix} 1.0 \\ 1.0 \end{bmatrix}$$

Initial conditions:

$$\begin{bmatrix} 0.0 \\ 0.0 \end{bmatrix}$$

Solutions:

Method	Solution (Vector)	Time (ms)	Iterations
Gauss Elimination	0.250000, 0.250000	0.0039	0
LU Decomposition	0.250000, 0.250000	0.0111	0
Gauss Seidel	0.250004, 0.249999	77.2298	12
Jacobian	0.249996, 0.249996	87.0020	21

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Convergence of Gauss-Seidel Method

Convergence of Jacobian Method