

Matrix A and Matrix B

Matrix A	Matrix B
$\begin{bmatrix} 1.8358 & 0.9412 & 0.1283 & 0. & 0.005 \\ -1.8358 & -0.9412 & 0.8717 & 0. & -0.005 \\ -132.8266 & -5.2038 & -10.2138 & 0. & -0.3613 \\ 0. & 0. & 1. & 0. & 0. \\ 248.3417 & 0. & 0. & 0. & 0. \end{bmatrix}$	$\begin{bmatrix} -0.005 \\ 0.005 \\ 0.3613 \\ -0. \\ -0. \end{bmatrix}$

Matrix C and Matrix D

Matrix C	Matrix D
$\begin{bmatrix} 0 & 0 & 0 & 0 & 1 \end{bmatrix}$	$\begin{bmatrix} -0. \end{bmatrix}$

Eigen Values

$\begin{bmatrix} 0. & 9.3353 & 3.4435 & 3.4435 & 0.7046 \end{bmatrix}$
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Damping Table

$\begin{bmatrix} \text{nan} & 1. & -0.1046 & -0.1046 & 1. \end{bmatrix}$
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