

Contoh: Stabilkan sistem dengan matrix
 $A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$?

Jawab: $[\lambda I - A] = \begin{bmatrix} \lambda - 1 & -2 \\ -3 & \lambda - 4 \end{bmatrix}$
 $\det[\lambda I - A] = (\lambda - 1)(\lambda - 4) - 6$

$$\lambda_{1,2} = \frac{5 \pm \sqrt{25 + 8}}{2} = \lambda^2 - 5\lambda - 2$$
$$= \frac{5}{2} \pm \frac{1}{2}\sqrt{33}$$

$\lambda_1 = 5,37$ $\lambda_2 = -0,37$

→ sistem tak stabil

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