Vzor

$$u' = 2u + v$$

$$v' = 3u + 4v$$

$$\begin{pmatrix} \lambda-2 & -1 \\ -3 & \lambda-4 \end{pmatrix} \quad \begin{matrix} u \\ v \end{matrix} \quad / \cdot(+3)$$

$$\begin{pmatrix} +3\lambda-6 & -3 \\ -3 & \lambda-4 \end{pmatrix} \quad \begin{matrix} \nearrow + \\ \cdot(\lambda-2) \end{matrix}$$

$$// \quad -3(\lambda-2) \qquad (\lambda-4)(\lambda-2)$$

$$\begin{pmatrix} 0 & -3+\lambda^2+8-6\lambda \\ -3 & \lambda-4 \end{pmatrix}$$

$$u' - 2u - v = 0$$

$$-3u + v' - 4v = 0$$

$$+3u' - 6u - 3v = 0$$

$$-3u + v' - 4v = 0$$

$$-3u' + v'' - 4v' = 0$$

$$+ (-2)(-3u + v' - 4v) = 0$$

$$\left.\begin{matrix} -3u' + 6u \\ +v'' - 4v' - 2v' + 8v = 0 \end{matrix}\right\}$$

$$-3u' + 6u + v'' - 6v' + 8v = 0$$

$$-3v + v'' - 6v' + 8v = 0$$

$$-3u + v' - 4v = 0$$

$$v'' - 6v' - 5v = 0$$

$$v'' - 6v' + 5v = 0$$

$$\lambda^2 - 6\lambda + 5 = 0$$

$$(\lambda - 1)(\lambda - 5) = 0 \qquad \lambda_1 = 1 \quad \lambda_2 = 5$$

$$v = c_1 e^x + c_2 e^{5x}$$

$$3u = v' - 4v$$

$$u = \frac{1}{3}\left(c_1 e^x + 5c_2 e^{5x} - 4c_1 e^x - 4c_2 e^{5x}\right)$$

$$u = \frac{1}{3}\left(-3c_1 e^x + c_2 e^{5x}\right)$$