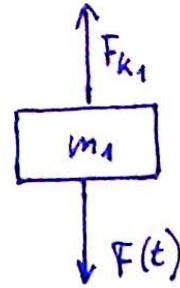


D: $m_1, m_2, k_1, k_2, F(t)$

y_1, y_2 ... měřeno od statické rovnovážné polohy

předp. $y_1 > y_2$



$$F_{k1} = k_1(y_1 - y_2)$$

$$F_{k2} = k_2 y_2$$

$$m_1 \ddot{y}_1 = F(t) - F_{k1} = F(t) - k_1(y_1 - y_2) \rightarrow m_1 \ddot{y}_1 + k_1 y_1 - k_1 y_2 = F(t)$$

$$m_2 \ddot{y}_2 = F_{k1} - F_{k2} = k_1(y_1 - y_2) - k_2 y_2 \rightarrow m_2 \ddot{y}_2 - k_1 y_1 + (k_1 + k_2) y_2 = 0$$

$$\begin{bmatrix} m_1 & 0 \\ 0 & m_2 \end{bmatrix} \begin{bmatrix} \ddot{y}_1 \\ \ddot{y}_2 \end{bmatrix} + \begin{bmatrix} k_1 & -k_1 \\ -k_1 & k_1 + k_2 \end{bmatrix} \begin{bmatrix} y_1 \\ y_2 \end{bmatrix} = \begin{bmatrix} F(t) \\ 0 \end{bmatrix}$$

.... a dále standardně