

MÉTODO DE PARÁMETROS VARIABLES

$$y_{g/n} = y_{g/h} + y_{f/q}.$$

$$y_g = C_1 e^{-\int p dx} + e^{-\int p dx} \int e^{\int p dx} f dx$$

$$y_{g/h} = \underline{C_1} e^{-\int p dx}$$

$$y_{g/n} = \left(C_1 + \int e^{\int p dx} f dx \right) e^{-\int p dx}$$

$$y_{g/n} = \underline{A(x)} e^{-\int p dx}$$

$$y'' - 5y' + 6y = 4e^x$$

$$y_{\text{hom}} = C_1 e^{2x} + C_2 e^{3x}$$

$$y_{\text{inh}} = A(x) e^{2x} + B(x) e^{3x}$$

$$y' = 2A(x)e^{2x} + 3B(x)e^{3x} + \underbrace{A'(x)e^{2x} + B'(x)e^{3x}}_{=0}$$

$$y' = 2A(x)e^{2x} + 3B(x)e^{3x} + 0$$

$$y'' = 4A(x)e^{2x} + 9B(x)e^{3x} + \underbrace{2A'(x)e^{2x} + 3B'(x)e^{3x}}_{=Q(x)}$$

$$y'' = 4A(x)e^{2x} + 9B(x)e^{3x} + Q(x)$$

$$\begin{bmatrix} A'(x) \\ B'(x) \end{bmatrix} \cdot \begin{bmatrix} e^{2x} & e^{3x} \\ 2e^{2x} & 3e^{3x} \end{bmatrix} = \begin{bmatrix} 0 \\ Q(x) \end{bmatrix}$$