

Exemplo 2 Folha 1

$$A = 1 \quad \text{Definir}$$

$$h = 0.01 \quad \text{Definir}$$

$$N = 5 \quad \text{Definir}$$

$$dy = h/N \quad \text{Definir}$$

$$dy = 0.002 \quad \text{Calc}$$

$$an = A/dy \quad \text{Definir}$$

$$as = A/dy \quad \text{Definir}$$

$$an = 500. \quad \text{Calc}$$

$$as = 500. \quad \text{Calc}$$

$$Sp = 2 \cdot A/dy \quad \text{Definir}$$

$$Sp = 1000. \quad \text{Calc}$$

$$Vh = 1 \quad \text{Definir}$$

$$Vo = 0 \quad \text{Definir}$$

$$A = \begin{pmatrix} an+Sp & -an & 0 & 0 & 0 \\ -as & as+an & -an & 0 & 0 \\ 0 & -as & as+an & -an & 0 \\ 0 & 0 & -as & as+an & -an \\ 0 & 0 & 0 & -as & as+Sp \end{pmatrix} \quad \text{Definir}$$

$$A = \begin{pmatrix} 1500. & -500. & 0. & 0. & 0. \\ -500. & 1000. & -500. & 0. & 0. \\ 0. & -500. & 1000. & -500. & 0. \\ 0. & 0. & -500. & 1000. & -500. \\ 0. & 0. & 0. & -500. & 1500. \end{pmatrix} \quad \text{Calc}$$

$$b = \begin{pmatrix} Sp \cdot Vo \\ 0 \\ 0 \\ 0 \\ Sp \cdot Vh \end{pmatrix} \quad \text{Definir}$$

$$\mathbf{b} = \begin{pmatrix} 0. \\ 0. \\ 0. \\ 0. \\ 1000. \end{pmatrix} \quad \text{Calc}$$

$$\text{resolver}(\mathbf{A}, \mathbf{b}) = \begin{pmatrix} 0.1 \\ 0.3 \\ 0.5 \\ 0.7 \\ 0.9 \end{pmatrix} \quad \text{Calc}$$