MVF:escoamento entre placas planas Folha 1

$A = 1$ Definir

$d = 0.01$ Definir

$N = 5$ Definir

$V = 1$ Definir

$Vo = 0$ Definir

$dy = \frac{d}{N}$ Definir

$aN = \frac{A}{dy}$ Definir

$aS = \frac{A}{dy}$ Definir

$Sp = \frac{2A}{dy}$ Definir

$dy = 0.002$ Calc

$aN = 500.$ Calc

$aS = 500.$ Calc

$Sp = 1000.$ Calc

$$C = \begin{pmatrix} aN+Sp & -aN & 0 & 0 & 0 \\ -aS & aS+aN & -aN & 0 & 0 \\ 0 & -aS & aS+aN & -aN & 0 \\ 0 & 0 & -aS & aS+aN & -aN \\ 0 & 0 & 0 & -aS & aS+Sp \end{pmatrix}$$ Definir

$$b = \begin{pmatrix} Sp \cdot Vo \\ 0 \\ 0 \\ 0 \\ Sp \cdot V \end{pmatrix}$$ Definir

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

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

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