



MatrixExp[t\*{{1,-1,1},{0,2,0},{0,3,-1}}]



Input:

$$\text{MatrixExp}\left[t \begin{pmatrix} 1 & -1 & 1 \\ 0 & 2 & 0 \\ 0 & 3 & -1 \end{pmatrix}\right]$$

Result:

Approximate form

$$\frac{1}{2} \begin{pmatrix} 2e^t & -e^{-t}(-1+e^{2t}) & e^{-t}(-1+e^{2t}) \\ 0 & 2e^{2t} & 0 \\ 0 & 2e^{-t}(-1+e^{3t}) & 2e^{-t} \end{pmatrix}$$