```
> restart : with(LinearAlgebra) : with(plots) : with(plottools) :
> A := Matrix([[0,-1, 0,-1], [1, 0, 0, 0], [0, 1, 0, 0], [0, 0, 1, 0]]) :
> J, Q := JordanForm(A, output = ['J', 'Q']) :
> u := Vector([1, 0, 2, 1]) :
> y := MatrixExponential(A, t) . u :
> f := simplify(y[4])
```

$$f := \frac{2\left(e^{-\frac{t}{2}} + \frac{3\,e^{\frac{t}{2}}}{2}\right)\sqrt{3}\,\sin\left(\frac{\sqrt{3}\,t}{2}\right)}{3} + e^{-\frac{t}{2}}\cos\left(\frac{\sqrt{3}\,t}{2}\right) \qquad (1)$$

```
> # ii is hetzelfde...
>
```