

$$+ 2t + e^{-0.85t} - 2 \cos\left(\frac{180}{10}t\right)$$



Math



Calculat



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$$\begin{bmatrix} x_1 & x_2 & x_3 \\ x_1 & x_2 & x_3 \\ x_1 & x_2 & x_3 \\ x_1 & x_2 & x_3 \end{bmatrix} = \begin{bmatrix} 10 \\ 19 \\ 12 \\ 7 \end{bmatrix}$$

$$A = \begin{bmatrix} 2 & -1 & 3 \\ 2 & 3 & 1 \\ 1 & 0 & -2 \\ 0 & -1 & 3 \end{bmatrix} \quad C = \begin{bmatrix} 10 \\ 9 \\ 3 \\ 7 \end{bmatrix}$$

$$D = \begin{bmatrix} 0.007 & 0.205 & 0.760 & 0.167 \\ 0.053 & 0.160 & -0.217 & -0.233 \\ -0.107 & 0.000 & 0.026 & 0.333 \\ 0.217 & 0.000 & -0.306 & 0.333 \end{bmatrix}$$

$$F = \begin{bmatrix} 11000 \\ 12000 \\ 3500 \\ 14000 \end{bmatrix}$$

The model equation $Y = 3e^{(0.05t)} + 2e^{-0.9t} - 1.6e^{0.2t}$
 Δ Conting for $t \leq 2$ bin, $\Delta t = 0.1$

Plot $\{t, y\}$
 $\{t, \Delta y\}$

0 - 1000	0.100 - 0.1969	1.000 - 0.7927
0.100 - 0.985	0.100 - 0.2026	1.100 - 0.7924
0.200 - 0.724	0.200 - 0.1436	1.200 - 1.9610
0.300 - 0.543	0.300 - 0.3661	1.300 - 1.4150
0.4000 - 0.356	0.400 - 0.5774	1.400 - 1.6375

1.500 - 1.637	2.600 - 4.5431
1.600 - 2.0935	
1.700 - 2.336	
1.800 - 2.8621	2.700 - 4.8090
1.900 - 2.8821	
2.000 - 3.504	
2.100 - 3.2287	2.300 - 5.0619
2.200 - 3.536	
2.300 - 3.762	
2.400 - 4.6367	
2.500 - 4.2103	