

IBIGOMIE GOODHEAD ISAAC  
18/ENG06/024  
MECHANICAL ENGINEERING

NUMBER 1:

$$A := \begin{pmatrix} 1 & -2 & -1 & 3 \\ 2 & 3 & 0 & 1 \\ 1 & 0 & -4 & -2 \\ 0 & -1 & 3 & 1 \end{pmatrix}$$

$$B = \begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \end{pmatrix}$$

$$C := \begin{pmatrix} 10 \\ 8 \\ 3 \\ -7 \end{pmatrix}$$

$$B = A^{-1}C$$

$$B = \begin{pmatrix} -1 \\ 2 \\ -3 \\ 4 \end{pmatrix}$$

Math

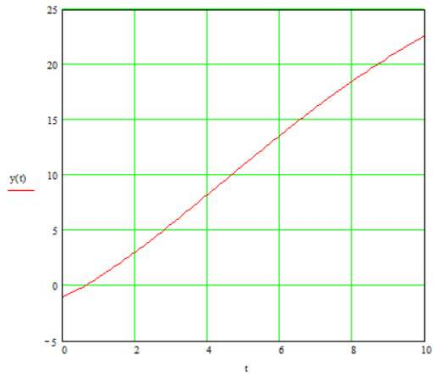


1.2  
1.3  
1.4  
1.5

$$y(t) := \sin(0.25t) + 2t + e^{-0.85t} - 2\cos\left(\frac{\pi t}{10}\right)$$

y(t) =

-1  
-0.856  
-0.702  
-0.541  
-0.373  
-0.197  
-0.015  
0.174  
0.368  
0.568  
0.773  
0.982  
1.197  
1.415  
1.637  
1.864



Math

Math



NUMBER 2:

$$t := 0, 0.1..10$$

t =

0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
1.1
1.2
1.3
1.4
1.5

$$y(t) := \sin(0.25t) + 2t + e^{-0.85t} - 2 \cos\left(\frac{\pi t}{10}\right)$$

y(t) =

-1
-0.856
-0.702
-0.541
-0.373
-0.197
-0.015
0.174
0.368
0.568

