

Name: Harding - Udoh Titania B.

Matric Number:18/ENG08/007

DEPT: Biomedical Engineering

Maths assignment IV

NUMBER 1:

$$A = \begin{pmatrix} 1 & -2 & -1 & 3 \\ 2 & 3 & 0 & 1 \\ 1 & 0 & -4 & -2 \\ 0 & -1 & 3 & 1 \end{pmatrix}$$
$$B = \begin{pmatrix} x1 \\ x2 \\ x3 \\ x4 \end{pmatrix}$$
$$C = \begin{pmatrix} 10 \\ 8 \\ 3 \\ -7 \end{pmatrix}$$
$$B = A^{-1}C$$
$$B = \begin{pmatrix} -1 \\ 2 \\ -3 \\ 4 \end{pmatrix}$$

NUMBER 2:

$$t = 0, 0.1, \dots, 10$$
$$y(t) = \sin(0.25t) + 2t + e^{-0.85t} - 2 \cos\left(\frac{\pi t}{10}\right)$$
$$y(t) = \begin{matrix} -1 \\ -0.856 \\ -0.702 \\ -0.541 \\ -0.373 \\ -0.197 \\ -0.016 \end{matrix}$$

Mathcad Professional - [Untitled1]

File Edit View Insert Format Math Symbolics Window Help

Normal Arial 10

0.6
0.7
0.8
0.9
1
1.1
1.2
1.3
1.4
1.5

$$y(t) = \sin(0.25t) + 2t + e^{-0.8t} - 2 \cos\left(\frac{\pi t}{10}\right)$$

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

x =

Press F1 for help.

AUTO NUM Page 2

7:22 PM  
ENG 15/11/2019