

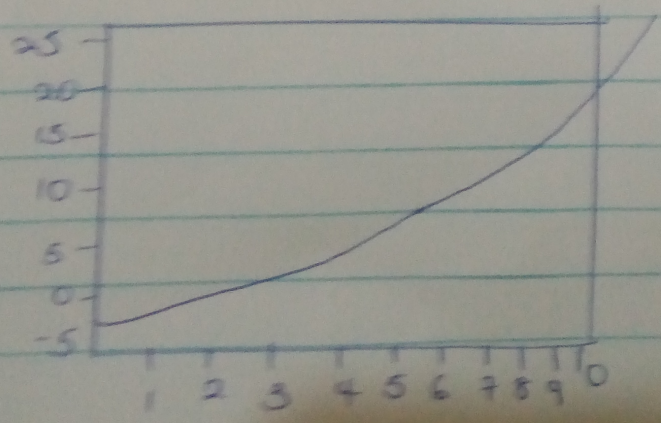
The set of modes of a system is given in equation (1)
 with the aid of MATLAB estimate the values of x in
 the aid of MATLAB estimate the values of the x 's in the
 model equation

$$\begin{cases} x_1 + 2x_2 - x_3 + 8x_4 = 10 \\ 2x_1 + 3x_2 + 4x_3 = 8 \\ x_1 - 4x_3 - 2x_4 = 3 \\ -x_2 + 3x_3 + x_4 = 4 \end{cases}$$

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

$$\textcircled{c} \begin{bmatrix} 10 \\ 8 \\ 3 \\ -4 \end{bmatrix} \quad D = \begin{matrix} 0.0267 & 0.2400 & 0.4933 & 0.667 \\ -0.0733 & 0.1600 & -2.267 & -0.333 \\ -0.1067 & 0.0400 & 0.0201 & 0.3333 \\ 0.2267 & 0.0400 & -0.3067 & -0.833 \end{matrix}$$

$$E = \begin{matrix} -1.0000 \\ 2.0000 \\ -3.0000 \\ 4.0000 \end{matrix}$$



③ The model equation $y = \sin(0.25t) + 2e^{-0.5t} - \cos t$

$0 \leq t \leq 10$ hrs, at $\Delta t = 0.1$ hr

$y = \sin(0.254t) + 2 * e^{-0.5t} - \cos(10t)$
 Plot (xy) grad mmo grad n

[t'y']	1.4000	1.6375
0 - 1.0000	1.500	1.8687
0.1000 - 0.3555	1.6000	2.0935
0.3000 - 0.7024	1.7000	2.3266
0.4000 - 0.8726	1.9000	2.5021
0.5000 - 0.9969	2.0000	3.0444
0.6000 - 0.0146	2.1000	3.2837
0.7000 - 0.1738	2.2000	3.5358
0.8000 - 0.3861	2.3000	3.7852

1 ;
 1 ;
 1 ;

9.8000	22.2341
9.9000	22.4175
10.0000	22.5987