ASSIGNMENT 7

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Download all python codes from

https://github.com/Y.Nagarani/ASSIGNMEN7/tree/main/CODES

and latex-tikz codes from

https://github.com/Y.Nagarani/ASSIGNMENT7/tree/main

1 Question No 2.44

Find x , if $\begin{pmatrix} x-5-1 \end{pmatrix}\begin{pmatrix} 1 & 0 & 2 \\ 0 & 2 & 1 \\ 2 & 0 & 3 \end{pmatrix}\begin{pmatrix} x \\ 4 \\ 1 \end{pmatrix} = 0$

2 SOLUTION

Given ,

$$\begin{pmatrix} x & -5 & -1 \end{pmatrix}\begin{pmatrix} 1 & 0 & 2 \\ 0 & 2 & 1 \\ 2 & 0 & 3 \end{pmatrix}\begin{pmatrix} x \\ 4 \\ 1 \end{pmatrix} = 0 \tag{2.0.1}$$

$$\begin{pmatrix} x-2 & -10 & 2x-8 \end{pmatrix}\begin{pmatrix} x \\ 4 \\ 1 \end{pmatrix} = 0 \tag{2.0.2}$$

$$\left(x^2 - 2x - 40 + 2x - 8\right) = 0 \tag{2.0.3}$$

$$x^2 - 48 = 0 \tag{2.0.4}$$

$$x = 6.92 \tag{2.0.5}$$