ASSIGNMENT 2

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Download latex-tikz codes from

https://github.com/Dishank422/EE3900/blob/main/assignment2/Assignment2.tex

1 Matrices 2.9

Find x and y if $2\begin{pmatrix}1 & 3\\0 & x\end{pmatrix}+\begin{pmatrix}y & 0\\1 & 2\end{pmatrix}=\begin{pmatrix}5 & 6\\1 & 8\end{pmatrix}$

2 Solution

$$2\begin{pmatrix}1 & 3\\0 & x\end{pmatrix}+\begin{pmatrix}y & 0\\1 & 2\end{pmatrix}=\begin{pmatrix}5 & 6\\1 & 8\end{pmatrix} \tag{2.0.1}$$

$$\implies \begin{pmatrix}2 & 6\\0 & 2x\end{pmatrix}+\begin{pmatrix}y & 0\\1 & 2\end{pmatrix}=\begin{pmatrix}5 & 6\\1 & 8\end{pmatrix} \tag{2.0.2}$$

$$\implies \begin{pmatrix}2+y & 6+0\\0+1 & 2x+2\end{pmatrix}=\begin{pmatrix}5 & 6\\1 & 8\end{pmatrix} \tag{2.0.3}$$

$$\implies 2+y=5,\ 2x+2=8 \tag{2.0.4}$$

$$\implies y=3,\ x=3 \tag{2.0.5}$$