

ASSIGNMENT 1

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Download latex-tikz codes from

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

1 VECTORS 2.13

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

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

$$\Rightarrow \begin{pmatrix} 2 & 6 \\ 0 & 2x \end{pmatrix} + \begin{pmatrix} y & 0 \\ 1 & 2 \end{pmatrix} = \begin{pmatrix} 5 & 6 \\ 1 & 8 \end{pmatrix} \quad (2.0.2)$$

$$\Rightarrow \begin{pmatrix} 2+y & 6+0 \\ 0+1 & 2x+2 \end{pmatrix} = \begin{pmatrix} 5 & 6 \\ 1 & 8 \end{pmatrix} \quad (2.0.3)$$

$$\Rightarrow 2+y=5, 2x+2=8 \quad (2.0.4)$$

$$\Rightarrow y=3, x=3 \quad (2.0.5)$$