

ASSIGNMENT 2

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Download all python codes from

<https://github.com/Ananthoju-Pranav-Sai/EE3900/blob/main/Assignment-1/codes/Assignment-2.py>

and latex-tikz codes from

<https://github.com/Ananthoju-Pranav-Sai/EE3900/tree/main/Assignment-1/Assignment-2.tex>

1 MATRICES 2.6(A)

Compute the indicated product

$$\begin{pmatrix} 2 & 3 & 4 \\ 3 & 4 & 5 \\ 4 & 5 & 6 \end{pmatrix} \begin{pmatrix} 1 & -3 & 5 \\ 0 & 2 & 4 \\ 3 & 0 & 5 \end{pmatrix} \quad (1.0.1)$$

2 SOLUTION

$$\begin{pmatrix} 2 & 3 & 4 \\ 3 & 4 & 5 \\ 4 & 5 & 6 \end{pmatrix} \begin{pmatrix} 1 & -3 & 5 \\ 0 & 2 & 4 \\ 3 & 0 & 5 \end{pmatrix} \quad (2.0.1)$$

Using the Matrix multiplication technique

$$= \begin{pmatrix} 2+0+12 & -6+6+0 & 10+12+20 \\ 3+0+15 & -9+8+0 & 15+16+25 \\ 4+0+18 & -12+10+0 & 20+20+30 \end{pmatrix} \quad (2.0.2)$$

$$= \begin{pmatrix} 14 & 0 & 42 \\ 18 & -1 & 56 \\ 22 & -2 & 70 \end{pmatrix} \quad (2.0.3)$$