MATHEMATICS1

Presented
by
Rima Akter(TEX2001019010)
19A(hena)
22.10.2020
Presented
to
Shormin Propa

Rima Akter(TEX2001019010)
19A(hena)

\# If A= $\begin{bmatrix} 6 & 3 \\ -3 & 9 \\ 12 & -6 \end{bmatrix}$ find the matrix B such that $2A^T + 3B = 0$.

$A^T = \begin{bmatrix} 6 & -3 & 12 \\ 3 & 9 & -6 \end{bmatrix}$

$2.A^T = 2 \begin{bmatrix} 6 & -3 & 12 \\ 3 & 9 & -6 \end{bmatrix}$

$2.A^T = \begin{bmatrix} 12 & -6 & 24 \\ 6 & 18 & -12 \end{bmatrix}$

$2A^T + 3B = 0$

$\Rightarrow \quad 3B = -2A^T$

$\Rightarrow \quad B = -1/3 \cdot 2A^T$

$\qquad = -1/3 \cdot \begin{bmatrix} 12 & -6 & 24 \\ 6 & 18 & -12 \end{bmatrix}$

$B = \begin{bmatrix} 4 & -2 & 8 \\ 2 & 6 & -4 \end{bmatrix}$ *Answer:*