

$$A = \begin{bmatrix} 2 & -1 & 5 \\ 3 & 4 & 1 \end{bmatrix} \text{ and } B = \begin{bmatrix} 1 & 0 & -2 \\ 2 & 3 & 4 \end{bmatrix}$$

$$8. (A+2B)^T$$

$$A+2B = \begin{bmatrix} 2 & -1 & 5 \\ 3 & 4 & 1 \end{bmatrix} + 2 \begin{bmatrix} 1 & 0 & -2 \\ 2 & 3 & 4 \end{bmatrix} = \begin{bmatrix} 2 & -1 & 5 \\ 3 & 4 & 1 \end{bmatrix} + \begin{bmatrix} 2 & 0 & -4 \\ 4 & 6 & 8 \end{bmatrix}$$

$$= \begin{bmatrix} 4 & -1 & 1 \\ 7 & 10 & 9 \end{bmatrix}$$

$$(A+2B)^T = \begin{bmatrix} 4 & 7 \\ -1 & 10 \\ 1 & 9 \end{bmatrix} \#$$

$$11. -(B^T)$$

$$B^T = \begin{bmatrix} 1 & 2 \\ 0 & 3 \\ -2 & 4 \end{bmatrix} \Rightarrow -(B^T) = - \begin{bmatrix} 1 & 2 \\ 0 & 3 \\ -2 & 4 \end{bmatrix} = \begin{bmatrix} -1 & -2 \\ 0 & -3 \\ 2 & -4 \end{bmatrix} \#$$

In Exercises 25-28 assume that $A = \begin{bmatrix} 3 & -2 \\ 0 & 1.6 \\ 2\pi & 5 \end{bmatrix}$

25. Determine a_{12}

$$a_{12} = -2 \#$$

28. Determine a_2

$$a_2 = \begin{bmatrix} -2 \\ 1.6 \\ 5 \end{bmatrix} \#$$