

Worked Examples:

Linear combination of matrices

Let $C = \begin{bmatrix} 0 & -3 \\ 0 & 3 \end{bmatrix}$ and $D = \begin{bmatrix} -7 & 7 \\ 0 & 3 \end{bmatrix}$.

Find $6C + 4D$.

$$6 \begin{bmatrix} 0 & -3 \\ 0 & 3 \end{bmatrix} + 4 \begin{bmatrix} -7 & 7 \\ 0 & 3 \end{bmatrix}$$

$$\begin{bmatrix} 0 & -18 \\ 0 & 18 \end{bmatrix} + \begin{bmatrix} -28 & 28 \\ 0 & 12 \end{bmatrix} = \begin{bmatrix} -28 & 10 \\ 0 & 30 \end{bmatrix}$$

$2 \times 2 \qquad \qquad 2 \times 2 \qquad \qquad 2 \times 2$

Linear combination of matrices

Let $B = \begin{bmatrix} -7 & 2 & 1 \\ 7 & -6 & 7 \end{bmatrix}$ and $C = \begin{bmatrix} 2 & -3 & -3 \\ 1 & 4 & 7 \end{bmatrix}$.

Find $-3B + 4C$.

$$-3 \begin{bmatrix} -7 & 2 & 1 \\ 7 & -6 & 7 \end{bmatrix} + 4 \begin{bmatrix} 2 & -3 & -3 \\ 1 & 4 & 7 \end{bmatrix}$$

$$\begin{bmatrix} 21 & -6 & -3 \\ -21 & 18 & -21 \end{bmatrix} + \begin{bmatrix} 8 & -12 & -12 \\ 4 & 16 & 28 \end{bmatrix}$$

$$\begin{bmatrix} 29 & -18 & -15 \\ -17 & 34 & 7 \end{bmatrix}$$

[#GraphsFunctionsAndSystems](#)

[Tags](#) [Archive](#) [RSS feed](#) [Youtube](#) [QR Code](#) email akennon@fscj.edu with any issues on this website

Made with [Montaigne](#) and [bigmission](#) 