

1. If $A = \begin{bmatrix} -6 & -5 & 3 \\ -2 & -3 & -7 \\ -1 & 2 & 1 \end{bmatrix}$ and $B = \begin{bmatrix} 2 & 1 & 6 \\ -4 & 0 & 9 \\ -3 & -2 & -6 \end{bmatrix}$, find $A + B$.

[A] $\begin{bmatrix} -4 & -4 & 9 \\ -6 & -3 & -5 \\ -4 & 0 & 2 \end{bmatrix}$ [B] $\begin{bmatrix} -4 & -4 & 9 \\ -6 & -3 & 2 \\ -4 & 0 & -5 \end{bmatrix}$ [C] $\begin{bmatrix} -8 & -6 & -3 \\ 2 & -3 & -16 \\ 2 & 4 & 7 \end{bmatrix}$ [D] $\begin{bmatrix} -8 & -6 & -3 \\ 2 & -3 & 7 \\ 2 & 4 & -16 \end{bmatrix}$

2. If $A = \begin{bmatrix} 4 & 7 & -4 \\ 0 & 2 & 8 \\ 3 & -2 & -1 \end{bmatrix}$ and $B = \begin{bmatrix} -5 & -7 & 5 \\ -1 & -9 & -4 \\ -2 & 4 & -8 \end{bmatrix}$, find $A - B$.

[A] $\begin{bmatrix} -1 & 0 & 1 \\ -1 & -7 & -9 \\ 1 & 2 & 4 \end{bmatrix}$ [B] $\begin{bmatrix} 9 & 14 & -9 \\ 1 & 11 & 7 \\ 5 & -6 & 12 \end{bmatrix}$ [C] $\begin{bmatrix} -1 & 0 & 1 \\ -1 & -7 & 4 \\ 1 & 2 & -9 \end{bmatrix}$ [D] $\begin{bmatrix} 9 & 14 & -9 \\ 1 & 11 & 12 \\ 5 & -6 & 7 \end{bmatrix}$

3. Subtract: $\begin{bmatrix} 31 & -38 \\ 11 & -14 \end{bmatrix} - \begin{bmatrix} -40 & -2 \\ 38 & 15 \end{bmatrix}$

4. Use a graphing calculator to find the difference $B - A$.

$$A = \begin{bmatrix} 0.2 & 1.04 & 3.6 \\ -3 & 4.9 & -5.1 \end{bmatrix} \quad B = \begin{bmatrix} 1.6 & -3.2 & 4.1 \\ -5.6 & -2.1 & 3.08 \end{bmatrix}$$

5. Compare the quantity in Column A with the quantity in Column B.

$$C = \begin{bmatrix} 4 & -2 & 8 \\ -3 & 5 & -1 \end{bmatrix} \quad D = \begin{bmatrix} 6 & -7 & 5 \\ -8 & -2 & 9 \end{bmatrix}$$

$$E = C + D \quad F = C - D$$

Column A Column B

e_{21} f_{23}

[A] The quantity in Column A is greater.

[B] The quantity in Column B is greater.

[C] The two quantities are equal.

[D] The relationship cannot be determined on the basis of the information supplied.

Precalculus Practice N.VM.C.8: Matrices 2

www.jmap.org

[1] B

[2] D

[3] $\begin{bmatrix} 71 & -36 \\ -27 & -29 \end{bmatrix}$

[4] $B - A = \begin{bmatrix} 1.4 & -4.24 & 0.5 \\ -2.6 & -7 & 8.18 \end{bmatrix}$

[5] B