mobius
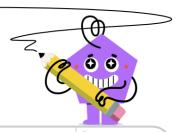## Matrices - Subtract with Two Scalars

1 Find the resulting matrix for zY - cD when z = 2 and c = 4

$$Y = \begin{bmatrix} 5 & 3 \\ 3 & 2 \\ 0 & 1 \end{bmatrix} \qquad D = \begin{bmatrix} 7 & 3 \\ 5 & 1 \\ 2 & 5 \end{bmatrix}$$

A $\begin{bmatrix} -18 & -8 \\ -14 & 0 \\ -8 & -21 \end{bmatrix}$ B $\begin{bmatrix} -18 & -6 \\ -14 & 0 \\ -8 & -18 \end{bmatrix}$

C $\begin{bmatrix} 0 & 8 \\ 3 & 1 \\ 0 & 0 \end{bmatrix}$ D $\begin{bmatrix} 5 & 1 \\ 9 & 9 \\ 0 & 3 \end{bmatrix}$

E $\begin{bmatrix} 10 & 6 & -28 & -12 \\ 6 & 4 & -20 & -4 \\ 0 & 2 & -8 & -20 \end{bmatrix}$

2 Find the resulting matrix for dP - yZ when d = 4 and y = 3

$$P = \begin{bmatrix} 0 & 7 & 2 \\ 2 & 7 & 2 \\ 5 & 3 & 1 \\ 2 & 6 & 7 \\ 8 & 6 & 0 \\ 4 & 7 & 2 \end{bmatrix}$$

$$Z = \begin{bmatrix} 2 & 6 & 7 \\ 8 & 6 & 0 \\ 4 & 7 & 2 \end{bmatrix}$$

A $\begin{bmatrix} 6 & 4 & 8 \\ 7 & 9 & 0 \\ 4 & 5 & 6 \end{bmatrix}$ B $\begin{bmatrix} 6 & 0 & 2 \\ 4 & 3 & 0 \\ 3 & 0 & 3 \end{bmatrix}$

C $\begin{bmatrix} -6 & 10 & -13 \\ -16 & 9 & 8 \\ 8 & -9 & -2 \end{bmatrix}$ D $\begin{bmatrix} -6 & 10 & -13 \\ -16 & 10 & 8 \\ 8 & -9 & -2 \end{bmatrix}$

E $\begin{bmatrix} 5 & 4 & 5 \\ 3 & 1 & 4 \\ 2 & 6 & 3 \end{bmatrix}$
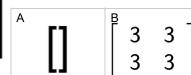
3 Find the resulting matrix for nC - mD when n = 2 and m = 3

$$C = \begin{bmatrix} 2 & 8 & 1 \end{bmatrix}$$
$$D = \begin{bmatrix} 4 & 8 & 1 \end{bmatrix}$$

A $\begin{bmatrix} -8 & -8 & -3 \end{bmatrix}$ B $\begin{bmatrix} -5 & -8 & -1 \end{bmatrix}$

C $\begin{bmatrix} 9 & 7 & 2 \end{bmatrix}$ D $\begin{bmatrix} 7 & 9 & 2 \end{bmatrix}$

E $\begin{bmatrix} -8 & -8 & -1 \end{bmatrix}$

4

$$D = [\,]$$

$$X = [\,]$$

Find the resulting matrix for cD - rX when c = 3 and r = 3

A $[\,]$ B $\begin{bmatrix} 3 & 3 \\ 3 & 3 \end{bmatrix}$

5 Find the resulting matrix for pC - dB when p = 2 and d = 2

$$C = \begin{bmatrix} 7 \\ 9 \end{bmatrix} \qquad B = \begin{bmatrix} 3 \\ 8 \end{bmatrix}$$

A $\begin{bmatrix} 2 \\ 9 \end{bmatrix}$ B $\begin{bmatrix} 14 \\ 18 \\ -6 \\ -16 \end{bmatrix}$ C $\begin{bmatrix} 8 \\ 2 \end{bmatrix}$ D $\begin{bmatrix} 2 & 2 \\ 2 & 2 \end{bmatrix}$ E $\begin{bmatrix} 7 \\ 0 \end{bmatrix}$

6 Find the resulting matrix for rX - cP when r = 2 and c = 3

$$X = \begin{bmatrix} 8 & 5 & 7 \\ 2 & 9 & 5 \\ 8 & 6 & 9 \\ 1 & 4 & 6 \end{bmatrix}$$

$$P = \begin{bmatrix} 8 & 6 & 9 \\ 1 & 4 & 6 \end{bmatrix}$$

A $\begin{bmatrix} -8 & -8 & -13 \\ 1 & 6 & -8 \end{bmatrix}$ B $\begin{bmatrix} -8 & -8 & -12 \\ 1 & 6 & -8 \end{bmatrix}$

C $\begin{bmatrix} -8 & -8 & -16 \\ 1 & 6 & -8 \end{bmatrix}$ D $\begin{bmatrix} 2 & 2 \\ 3 & 3 \end{bmatrix}$

E $\begin{bmatrix} 3 & 0 & 2 \\ 6 & 7 & 9 \end{bmatrix}$

7 Find the resulting matrix for dR - bX when d = 2 and b = 4

$$R = \begin{bmatrix} 4 \\ 4 \\ 7 \end{bmatrix} \qquad X = \begin{bmatrix} 8 \\ 4 \\ 9 \end{bmatrix}$$

A $\begin{bmatrix} 6 \\ 4 \\ 8 \end{bmatrix}$ B $\begin{bmatrix} 8 & -32 \\ 8 & -16 \\ 14 & -36 \end{bmatrix}$ C $\begin{bmatrix} 8 \\ 5 \\ 5 \end{bmatrix}$ D $\begin{bmatrix} -24 \\ -8 \\ -22 \end{bmatrix}$

8 Find the resulting matrix for zP - bD when z = 3 and b = 2

$$P = \begin{bmatrix} 0 & 4 & 9 \\ 5 & 6 & 1 \\ 4 & 3 & 7 \\ 7 & 3 & 7 \end{bmatrix}$$

$$D = \begin{bmatrix} 9 & 2 & 4 \\ 0 & 2 & 5 \end{bmatrix}$$

A $\begin{bmatrix} 3 & 3 \\ 2 & 2 \end{bmatrix}$ B $\begin{bmatrix} 9 & 0 & 9 \\ 5 & 8 & 7 \\ 3 & 6 & 8 \end{bmatrix}$

C $\begin{bmatrix} 0 & 12 & 27 \\ 15 & 18 & 3 \\ 12 & 9 & 21 \\ -14 & -6 & -14 \\ -18 & -4 & -8 \\ 0 & -4 & -10 \end{bmatrix}$ D $\begin{bmatrix} -14 & 6 & 13 \\ -3 & 14 & -5 \\ 12 & 5 & 11 \end{bmatrix}$

E $\begin{bmatrix} 3 & 3 & 0 \\ 9 & 0 & 0 \\ 2 & 8 & 8 \end{bmatrix}$