



Math worksheet on 'Matrices - Subtract with One Scalar (Level 1)'. Part of a broader unit on 'Matrices'

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1 Find the resulting matrix for $X - bM$ when $b = 2$

$X = \begin{bmatrix} 2 & 5 & 6 \\ 4 & 2 & 2 \\ 3 & 7 & 3 \end{bmatrix}$

$M = \begin{bmatrix} 2 & 3 & 2 \\ 2 & 2 & 6 \\ 6 & 2 & 2 \end{bmatrix}$

a $\begin{bmatrix} 1 & 1 \\ 2 & 2 \end{bmatrix}$	b $\begin{bmatrix} 2 & 2 & 7 \\ 4 & 1 & 3 \\ 4 & 8 & 5 \end{bmatrix}$
c $\begin{bmatrix} -2 & -1 & 2 \\ 0 & -2 & -10 \\ -9 & 0 & -1 \end{bmatrix}$	d $\begin{bmatrix} -2 & -1 & 2 \\ 0 & -2 & -10 \\ -9 & 3 & -1 \end{bmatrix}$
e $\begin{bmatrix} 2 & 5 & 6 & -4 & -6 & -4 \\ 4 & 2 & 2 & -4 & -4 & -12 \\ 3 & 7 & 3 & -12 & -4 & -4 \end{bmatrix}$	

2

$M = \begin{bmatrix} & & \\ & & \\ & & \end{bmatrix}$

$R = \begin{bmatrix} & & \\ & & \\ & & \end{bmatrix}$

Find the resulting matrix for $zM - R$ when $z = 4$

a undefined	b $\begin{bmatrix} & & \\ & & \\ & & \end{bmatrix}$
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3 Find the resulting matrix for $dR - X$ when $d = 2$

$R = \begin{bmatrix} 2 & 7 & 9 \\ 3 & 8 & 7 \end{bmatrix}$

$X = \begin{bmatrix} 2 & 7 & 9 \\ 3 & 8 & 7 \end{bmatrix}$

a $\begin{bmatrix} 7 & 8 & 2 \end{bmatrix}$	b $\begin{bmatrix} 1 & 6 & 11 \end{bmatrix}$
c $\begin{bmatrix} 1 & 1 & 2 \end{bmatrix}$	d $\begin{bmatrix} 4 & 14 & 18 \\ -3 & -8 & -7 \end{bmatrix}$

4 Find the resulting matrix for $X - rB$ when $r = 2$

$X = \begin{bmatrix} & & \\ & & \\ & & \end{bmatrix}$

$B = \begin{bmatrix} & & \\ & & \\ & & \end{bmatrix}$

a undefined	b $\begin{bmatrix} 1 & 1 \\ 2 & 2 \end{bmatrix}$
c $\begin{bmatrix} & & \\ & & \\ & & \end{bmatrix}$	

5 Find the resulting matrix for $yZ - C$ when $y = 2$

$Z = \begin{bmatrix} & & \\ & & \\ & & \end{bmatrix}$

$C = \begin{bmatrix} & & \\ & & \\ & & \end{bmatrix}$

a $\begin{bmatrix} & & \\ & & \\ & & \end{bmatrix}$	b $\begin{bmatrix} 2 & 2 \\ 1 & 1 \end{bmatrix}$
c undefined	

6 Find the resulting matrix for $M - cR$ when $c = 4$

$M = \begin{bmatrix} 5 & 7 & 4 \\ 9 & 3 & 1 \\ 2 & 7 & 5 \end{bmatrix}$

$R = \begin{bmatrix} 1 & 5 & 8 \\ 3 & 2 & 6 \\ 1 & 2 & 9 \end{bmatrix}$

a $\begin{bmatrix} 1 & -13 & -28 \\ -1 & -5 & -23 \\ -2 & -2 & -31 \end{bmatrix}$	b $\begin{bmatrix} 1 & -13 & -28 \\ -3 & -5 & -23 \\ -2 & -1 & -31 \end{bmatrix}$
c $\begin{bmatrix} 5 & 8 & 6 \\ 0 & 9 & 9 \\ 2 & 9 & 4 \end{bmatrix}$	d $\begin{bmatrix} 5 & 7 & 4 \\ 9 & 3 & 1 \\ 2 & 7 & 5 \\ -4 & -20 & -32 \\ -12 & -8 & -24 \\ -4 & -8 & -36 \end{bmatrix}$
e $\begin{bmatrix} 4 & 9 & 5 \\ 3 & 3 & 3 \\ 4 & 9 & 3 \end{bmatrix}$	

7 Find the resulting matrix for $Y - rN$ when $r = 4$

$Y = \begin{bmatrix} 6 & 3 \\ 0 & 3 \end{bmatrix}$

$N = \begin{bmatrix} 6 & 3 \\ 0 & 3 \end{bmatrix}$

a $\begin{bmatrix} 7 & 7 \end{bmatrix}$	b $\begin{bmatrix} 6 & 1 \end{bmatrix}$
c $\begin{bmatrix} 6 & -9 \end{bmatrix}$	d $\begin{bmatrix} 1 & 3 \end{bmatrix}$
e $\begin{bmatrix} 0 & 6 \end{bmatrix}$	