**Introduction to Matrices**

Write down the order of these matrices.

(a) $\left(\begin{matrix}3\\1\end{matrix}\right)$ (b) $\left(\begin{matrix}0&3\\2&-2\\4&1\end{matrix}\right)$

(c) $\left(\begin{matrix}3&2&6\end{matrix}\right)$ (d) $\left(\begin{matrix}0.5&0\\1.5&1\end{matrix}\right)$

Work out:

(a) $\left(\begin{matrix}4\\1\end{matrix}\right)+\left(\begin{matrix}-2\\0\end{matrix}\right)$ (b) $\left(\begin{matrix}-2\\3\end{matrix}\right)-\left(\begin{matrix}4\\-1\end{matrix}\right)$

(c) $\left(\begin{matrix}-1&0\\4&7\end{matrix}\right)+\left(\begin{matrix}2&-3\\0&-2\end{matrix}\right)$

(d) $\left(\begin{matrix}5&0.5\\-0.5&3\end{matrix}\right)-\left(\begin{matrix}2&1\\-4&0.5\end{matrix}\right)$

Work out:

(a) $2×\left(\begin{matrix}3\\0\\-1\end{matrix}\right)$ (b) $4×\left(\begin{matrix}3&-1\\0.5&6\end{matrix}\right)$

(c) $-3×\left(\begin{matrix}11\\-8\end{matrix}\right)$ (d) $\frac{1}{2}×\left(\begin{matrix}4&-6\\2&0\\3&8\end{matrix}\right)$

Given that

$$A=\left(\begin{matrix}-2&3\\0&5\end{matrix}\right) B=\left(\begin{matrix}4&-1\\-3&7\end{matrix}\right) C=\left(\begin{matrix}-2&0\\8&-3\end{matrix}\right)$$

Find:

(a) $A+B-C$

(b) $C-B$

(c) $2A$

(d) $A+2B$

(e) $3C+B$

(f) $4B-A$

(g) $2A+3C$

(h) $-4B+A+2B$

**Introduction to Matrices**

Write down the order of these matrices.

(a) $\left(\begin{matrix}3\\1\end{matrix}\right)$ (b) $\left(\begin{matrix}0&3\\2&-2\\4&1\end{matrix}\right)$

(c) $\left(\begin{matrix}3&2&6\end{matrix}\right)$ (d) $\left(\begin{matrix}0.5&0\\1.5&1\end{matrix}\right)$

Work out:

(a) $\left(\begin{matrix}4\\1\end{matrix}\right)+\left(\begin{matrix}-2\\0\end{matrix}\right)$ (b) $\left(\begin{matrix}-2\\3\end{matrix}\right)-\left(\begin{matrix}4\\-1\end{matrix}\right)$

(c) $\left(\begin{matrix}-1&0\\4&7\end{matrix}\right)+\left(\begin{matrix}2&-3\\0&-2\end{matrix}\right)$

(d) $\left(\begin{matrix}5&0.5\\-0.5&3\end{matrix}\right)-\left(\begin{matrix}2&1\\-4&0.5\end{matrix}\right)$

Work out:

(a) $2×\left(\begin{matrix}3\\0\\-1\end{matrix}\right)$ (b) $4×\left(\begin{matrix}3&-1\\0.5&6\end{matrix}\right)$

(c) $-3×\left(\begin{matrix}11\\-8\end{matrix}\right)$ (d) $\frac{1}{2}×\left(\begin{matrix}4&-6\\2&0\\3&8\end{matrix}\right)$

Given that

$$A=\left(\begin{matrix}-2&3\\0&5\end{matrix}\right) B=\left(\begin{matrix}4&-1\\-3&7\end{matrix}\right) C=\left(\begin{matrix}-2&0\\8&-3\end{matrix}\right)$$

Find:

(a) $A+B-C$

(b) $C-B$

(c) $2A$

(d) $A+2B$

(e) $3C+B$

(f) $4B-A$

(g) $2A+3C$

(h) $-4B+A+2B$