Addition/subtraction/scalar multiplication

Name: _____ Date: _____

6 questions | 12 marks

1. Calculate $\begin{pmatrix}1 & 4\end{pmatrix}+\begin{pmatrix}3 & -2\end{pmatrix}$. [2 marks]

2. Calculate $-3\begin{pmatrix}2 & -1\\0 & 4\end{pmatrix}$. [2 marks]

3. Calculate $\begin{pmatrix}5 & 2\\-1 & 7\end{pmatrix}-\begin{pmatrix}2 & -3\\4 & 1\end{pmatrix}$. [2 marks]

4. Find X if $X+\begin{pmatrix}2 & 0\\ 1 & 3\end{pmatrix}=\begin{pmatrix}5 & 4\\ -2 & 8\end{pmatrix}$. [2 marks]

5. Find $\frac{1}{2}A+2B$ for $A=\begin{pmatrix}4 & 2\end{pmatrix}$, $B=\begin{pmatrix}-1 & 3\end{pmatrix}$. [2 marks]

6. Explain why a 2×2 matrix and a 2×3 matrix cannot be added. [2 marks]