The following problem was given to Ms. Adams' class. Here is one of the students' answers. Is it correct or incorrect? If it is correct, explain how the student arrived at the answer. If it is incorrect, explain why.

$$\begin{bmatrix} 6 & 3 \\ 2 & -1 \end{bmatrix} \begin{bmatrix} 3 & 2 \\ -4 & 8 \end{bmatrix} = \begin{bmatrix} 22 & 7 \\ 8 & -20 \end{bmatrix}$$

$$\forall 6(3)+2(2) = 18+4=22$$

$$496(-4) + 2(8) = -24 + 16 = 8$$

$$4 3(3) + (-1)(2) = 9 + (-2) = 7$$

$$73(-4) + (-1)(8) = -12 + (-8) = -20$$