

$$\begin{pmatrix} -1 & 2 \\ 0 & 1 \\ -2 & 3 \end{pmatrix} \left(\begin{array}{c|c|c} 1 & -2 & 0 \\ 2 & -1 & 3 \end{array} \right) + \begin{pmatrix} 3 & 0 & -4 \\ -2 & 1 & -3 \\ 1 & -1 & -2 \end{pmatrix}$$

$$= \left(\begin{array}{c} \square \\ \square \\ \square \end{array} \times \begin{array}{c} 1 \\ 1 \\ 1 \end{array} + \begin{array}{c} \square \\ \square \\ \square \end{array} \times \begin{array}{c} 2 \\ 2 \\ 2 \end{array} + 3 \left\| \begin{array}{c} \square \\ \square \\ \square \end{array} \times \begin{array}{c} -2 \\ -2 \\ -2 \end{array} + \begin{array}{c} \square \\ \square \\ \square \end{array} \times \begin{array}{c} -1 \\ -1 \\ -1 \end{array} + 0 \left\| \begin{array}{c} \square \\ \square \\ \square \end{array} \times \begin{array}{c} 0 \\ 0 \\ 0 \end{array} + \begin{array}{c} 2 \\ \square \\ \square \end{array} \times \begin{array}{c} 3 \\ 3 \\ 3 \end{array} - 4 \right)$$

$$= \left(\left(\begin{pmatrix} -1 & 2 \\ 0 & 1 \\ -2 & 3 \end{pmatrix} \right) \left(\begin{array}{c} \square \\ \square \\ \square \end{array} \right) + \begin{pmatrix} 3 \\ -2 \\ 1 \end{pmatrix} \left\| \left(\begin{pmatrix} -1 & 2 \\ 0 & 1 \\ -2 & 3 \end{pmatrix} \right) \left(\begin{array}{c} \square \\ \square \\ \square \end{array} \right) + \begin{pmatrix} 0 \\ 1 \\ -1 \end{pmatrix} \left\| \left(\begin{pmatrix} -1 & 2 \\ 0 & 1 \\ -2 & 3 \end{pmatrix} \right) \left(\begin{array}{c} \square \\ \square \\ \square \end{array} \right) + \begin{pmatrix} -4 \\ -3 \\ -2 \end{pmatrix} \right)$$