$$\begin{pmatrix} 1 & 2 & 0 \\ 0 & 1 & 1 \end{pmatrix} \times \begin{pmatrix} 1 & 5 & 0 \\ 0 & 2 & 1 \\ 1 & 4 & 1 \end{pmatrix} = \begin{pmatrix} 1 & 9 & 2 \\ 1 & 6 & 2 \end{pmatrix}$$

$$\begin{pmatrix} 1 & 5 & 0 \\ 0 & 2 & 1 \\ 1 & 4 & 1 \end{pmatrix} \times \begin{pmatrix} 1 & 5 & 0 \\ 0 & 2 & 1 \\ 1 & 4 & 1 \end{pmatrix} = \begin{pmatrix} 1 & 15 & 5 \\ 1 & 8 & 3 \\ 2 & 17 & 5 \end{pmatrix}$$

$$\begin{pmatrix} 2 & 1 \\ 0 & 0 \\ 1 & 0 \\ 1 & -1 \end{pmatrix} \times \begin{pmatrix} 1 & 2 & 0 \\ 0 & 1 & 1 \end{pmatrix} = \begin{pmatrix} 2 & 5 & 1 \\ 0 & 0 & 0 \\ 1 & 2 & 0 \\ 1 & 1 & -1 \end{pmatrix}$$

$$\begin{pmatrix} 1 \\ 2 \\ 0 \\ -1 \end{pmatrix} \times \begin{pmatrix} 1 & -1 & 0 \end{pmatrix} = \begin{pmatrix} 1 & -1 & 0 \\ 2 & -2 & 0 \\ 0 & 0 & 0 \\ -1 & 1 & 0 \end{pmatrix}$$

$$\begin{pmatrix} 1 \\ 2 \\ 0 \\ -1 \end{pmatrix} \times \begin{pmatrix} 3 \end{pmatrix} = \begin{pmatrix} 3 \\ 6 \\ 0 \\ -3 \end{pmatrix}$$

$$\begin{pmatrix} 1 & -1 & 0 \end{pmatrix} \times \begin{pmatrix} 1 & 5 & 0 \\ 0 & 2 & 1 \\ 1 & 4 & 1 \end{pmatrix} = \begin{pmatrix} 1 & 3 & -1 \end{pmatrix}$$

$$\begin{pmatrix} 3 \end{pmatrix} \times \begin{pmatrix} 1 & -1 & 0 \end{pmatrix} = \begin{pmatrix} 3 & -3 & 0 \end{pmatrix}$$

$$\begin{pmatrix} 3 \end{pmatrix} \times \begin{pmatrix} 3 \end{pmatrix} = \begin{pmatrix} 9 \end{pmatrix}$$