

$$\begin{pmatrix} 0 & 1 \\ 2 & 3 \end{pmatrix} \begin{pmatrix} 4 & 5 \\ 6 & 7 \end{pmatrix} = \begin{pmatrix} 6 & 7 \\ 26 & 31 \end{pmatrix}$$

Diagram illustrating the first step of matrix multiplication: the element 0 in the first row, first column of the first matrix is crossed out, and the element 1 is moved to the first row, second column of the second matrix (indicated by a red arrow).

$$\begin{pmatrix} 0 & 1 \\ 2 & 3 \end{pmatrix} \begin{pmatrix} 4 & 5 \\ 6 & 7 \end{pmatrix} = \begin{pmatrix} 6 & 7 \\ 26 & 31 \end{pmatrix}$$

Diagram illustrating the second step of matrix multiplication: the element 5 in the first row, second column of the second matrix is crossed out, and the element 7 is moved to the second row, second column of the second matrix (indicated by a red arrow).

$$\begin{pmatrix} 0 & 1 \\ 2 & 3 \end{pmatrix} \begin{pmatrix} 4 & 5 \\ 6 & 7 \end{pmatrix} = \begin{pmatrix} 6 & 7 \\ 26 & 31 \end{pmatrix}$$

Diagram illustrating the third step of matrix multiplication: the element 2 in the second row, first column of the first matrix is crossed out, and the element 3 is moved to the second row, second column of the second matrix (indicated by a red arrow).

$$\begin{pmatrix} 0 & 1 \\ 2 & 3 \end{pmatrix} \begin{pmatrix} 4 & 5 \\ 6 & 7 \end{pmatrix} = \begin{pmatrix} 6 & 7 \\ 26 & 31 \end{pmatrix}$$

Diagram illustrating the fourth step of matrix multiplication: the element 3 in the second row, second column of the second matrix is crossed out, and the element 7 is moved to the second row, third column of the second matrix (indicated by a red arrow).