

We will be multiplying 2 matrices using python

$$\text{matrix } A = \begin{bmatrix} [1, 2] & [3, 4] \end{bmatrix} \quad \text{OR} \quad \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$$

$$\text{matrix } B = \begin{bmatrix} [5, 6] & [7, 8] \end{bmatrix} \quad \text{OR} \quad \begin{bmatrix} 5 & 6 \\ 7 & 8 \end{bmatrix}$$

We need to matrix A X matrix B

$$\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} \quad \begin{bmatrix} 5 & 6 \\ 7 & 8 \end{bmatrix} = \begin{bmatrix} \square & \square \\ \square & \square \end{bmatrix}$$

$$\text{Result } (0,0) \Rightarrow 1 \times 5 + 2 \times 7 = 19$$

Python code  $\Rightarrow$

$$[0,0] \Rightarrow A[0,0] * B[0,0] + A[0,1] * B[1,0]$$

Template

$$R[i][j] \Rightarrow A[i,0] * B[0,j] + A[i,1] * B[1,j]$$