

Matrix Multiplication Practice

Example 1:

$$\begin{bmatrix} 2 & 3 & 6 \\ 4 & 5 & 7 \end{bmatrix} \times \begin{bmatrix} 8 \\ 9 \\ 10 \end{bmatrix} = \begin{bmatrix} 103 \\ 147 \end{bmatrix}$$

$$4 \cdot 8 + 5 \cdot 9 + 7 \cdot 10 = 147$$

sample entry
row 2 column 1

Example 2:

$$\begin{bmatrix} 2 & 3 \\ 4 & 5 \end{bmatrix} \times \begin{bmatrix} 6 & 7 \\ 8 & 9 \\ 10 & 11 \end{bmatrix}$$

Cannot be
multiplied.

$$\underline{2} \times \text{[blacked out]} \times \text{[blacked out]} \times \underline{2}$$

Example 3:

$$\begin{bmatrix} 2 & 3 & 6 \\ 4 & 5 & 7 \end{bmatrix} \times \begin{bmatrix} 8 & 11 & 14 \\ 9 & 12 & 15 \\ 10 & 13 & 16 \end{bmatrix} = \begin{bmatrix} 103 & 136 & 169 \\ 147 & 195 & 243 \end{bmatrix}$$

sample entry
row 1 column 3

$$2 \cdot 14 + 3 \cdot 15 + 6 \cdot 16 = 28 + 45 + 96 = 169$$