

Fill in the Blanks

Matrix Multiplication

| Question | Working | | Answer |
|---|---------------------------|---------------------------|--|
| $\begin{pmatrix} 3 & 0 \\ 1 & 4 \end{pmatrix} \times \begin{pmatrix} 2 & 1 \\ 5 & 0 \end{pmatrix}$ | $3 \times 2 + 0 \times 5$ | $3 \times 1 + 0 \times 0$ | $\begin{pmatrix} 6 & \square \\ \square & \square \end{pmatrix}$ |
| | $1 \times 2 + 4 \times 5$ | $1 \times 1 + 4 \times 0$ | |
| $\begin{pmatrix} 4 & 2 \\ 3 & 0 \end{pmatrix} \times \begin{pmatrix} 7 & 0 \\ 1 & 1 \end{pmatrix}$ | | $4 \times 0 + 2 \times 1$ | $\begin{pmatrix} \square & 2 \\ \square & \square \end{pmatrix}$ |
| | $3 \times 7 + 0 \times 1$ | $3 \times 0 + 0 \times 1$ | |
| $\begin{pmatrix} 2 & -1 \\ 1 & 3 \end{pmatrix} \times \begin{pmatrix} 0 & 4 \\ 2 & 1 \end{pmatrix}$ | | | $\begin{pmatrix} \square & \square \\ 6 & \square \end{pmatrix}$ |
| | $1 \times 0 + 3 \times 2$ | | |
| $\begin{pmatrix} -3 & 1 \\ -2 & 0 \end{pmatrix} \times \begin{pmatrix} 0 & -1 \\ 4 & 1 \end{pmatrix}$ | | | $\begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix}$ |
| | | | |
| $\begin{pmatrix} 1.5 & 0 \\ -3 & 2 \end{pmatrix} \times \begin{pmatrix} 4 & 0.5 \\ 2 & -1 \end{pmatrix}$ | | | $\begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix}$ |
| | | | |
| $\begin{pmatrix} 3 & -2 \\ 4 & 3 \\ 0 & 3 \end{pmatrix} \times \begin{pmatrix} -1 & 2 \\ 4 & 2 \end{pmatrix}$ | | | $\begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix}$ |
| | | | |
| $\begin{pmatrix} 1 & \sqrt{3} \\ -2 & 0 \end{pmatrix} \times \begin{pmatrix} -2 & 0 \\ \sqrt{3} & 4 \end{pmatrix}$ | | | $\begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix}$ |
| | | | |
| $\begin{pmatrix} \square & 1 \\ 0 & 2 \end{pmatrix} \times \begin{pmatrix} 2 & 1 \\ 3 & \square \end{pmatrix}$ | | | $\begin{pmatrix} 11 & \square \\ \square & 10 \end{pmatrix}$ |
| | | | |
| $\begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix} \times \begin{pmatrix} 2 & -1 \\ 1 & 3 \end{pmatrix}$ | | | $\begin{pmatrix} 3 & 16 \\ 7 & 0 \end{pmatrix}$ |
| | | | |