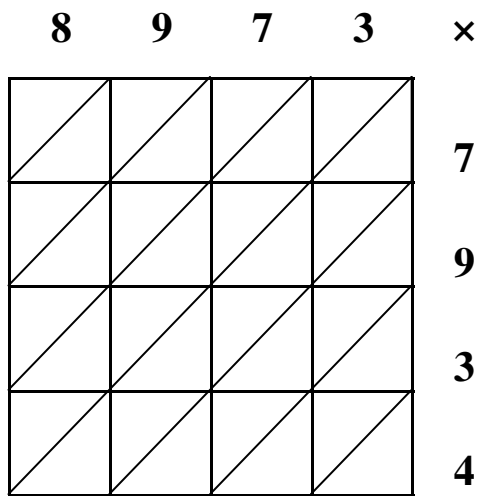
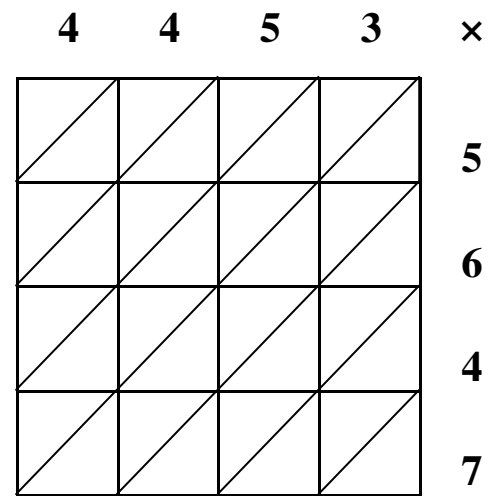


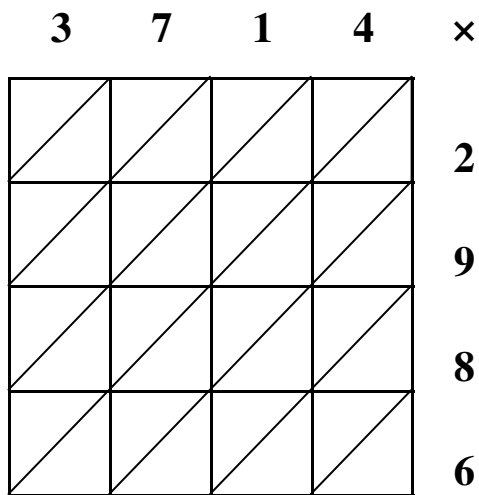
# Lattice Multiplication (Q)



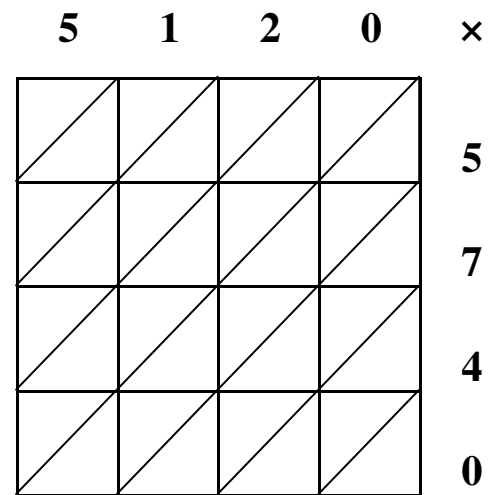
$$8973 \times 7934$$



$$4453 \times 5647$$



$$3714 \times 2986$$



$$5120 \times 5740$$

# Lattice Multiplication (Q) Answers

$$\begin{array}{r}
 \mathbf{8 \quad 9 \quad 7 \quad 3} \times \\
 \begin{array}{|c|c|c|c|}
 \hline
 5 & 6 & 4 & 2 \\
 \hline
 6 & 3 & 9 & 1 \\
 \hline
 7 & 8 & 6 & 2 \\
 \hline
 2 & 1 & 3 & 7 \\
 \hline
 2 & 2 & 2 & 0 \\
 \hline
 4 & 7 & 1 & 9 \\
 \hline
 3 & 3 & 2 & 1 \\
 \hline
 2 & 6 & 8 & 2 \\
 \hline
 \end{array} \\
 \begin{array}{r}
 2 \quad 7 \\
 2 \quad 1 \\
 2 \quad 1 \\
 2 \quad 1 \\
 2 \quad 9
 \end{array}
 \end{array}$$

$1 \quad 7 \quad 8 \quad 2$   
 $1 \quad 1$   
 $8973 \quad \times \quad 7934$   
 $71,191,782$

$$\begin{array}{r}
 \mathbf{4 \quad 4 \quad 5 \quad 3} \times \\
 \begin{array}{|c|c|c|c|}
 \hline
 2 & 2 & 2 & 1 \\
 \hline
 0 & 0 & 5 & 5 \\
 \hline
 2 & 2 & 3 & 1 \\
 \hline
 4 & 4 & 0 & 8 \\
 \hline
 1 & 1 & 2 & 1 \\
 \hline
 6 & 6 & 0 & 2 \\
 \hline
 2 & 2 & 3 & 2 \\
 \hline
 8 & 8 & 5 & 1 \\
 \hline
 \end{array} \\
 \begin{array}{r}
 0 \quad 2 \\
 1 \quad 5 \\
 2 \quad 1 \\
 2 \quad 4
 \end{array}
 \end{array}$$

$2 \quad 0$   
 $2 \quad 0$   
 $4453 \quad \times \quad 5647$   
 $25,146,091$

$$\begin{array}{r}
 \mathbf{3 \quad 7 \quad 1 \quad 4} \times \\
 \begin{array}{|c|c|c|c|}
 \hline
 0 & 1 & 0 & 0 \\
 \hline
 6 & 4 & 2 & 8 \\
 \hline
 2 & 6 & 0 & 3 \\
 \hline
 7 & 3 & 9 & 6 \\
 \hline
 2 & 5 & 0 & 3 \\
 \hline
 4 & 6 & 8 & 2 \\
 \hline
 1 & 4 & 0 & 2 \\
 \hline
 8 & 2 & 6 & 4 \\
 \hline
 \end{array} \\
 \begin{array}{r}
 1 \quad 1 \\
 2 \quad 1 \\
 1 \quad 0 \\
 4 \quad 9
 \end{array}
 \end{array}$$

$0 \quad 0 \quad 0 \quad 4$   
 $2 \quad 1$   
 $3714 \quad \times \quad 2986$   
 $11,090,004$

$$\begin{array}{r}
 \mathbf{5 \quad 1 \quad 2 \quad 0} \times \\
 \begin{array}{|c|c|c|c|}
 \hline
 2 & 0 & 1 & 0 \\
 \hline
 5 & 5 & 0 & 0 \\
 \hline
 3 & 0 & 1 & 0 \\
 \hline
 5 & 7 & 4 & 0 \\
 \hline
 2 & 0 & 0 & 0 \\
 \hline
 0 & 4 & 8 & 0 \\
 \hline
 0 & 0 & 0 & 0 \\
 \hline
 0 & 0 & 0 & 0 \\
 \hline
 \end{array} \\
 \begin{array}{r}
 0 \quad 2 \\
 1 \quad 9 \\
 0 \quad 3 \\
 0 \quad 8
 \end{array}
 \end{array}$$

$0 \quad 0$   
 $0 \quad 0$   
 $5120 \quad \times \quad 5740$   
 $29,388,800$