A COMPLETE LIST OF g-VECTORS FOR \mathcal{D}_5

We recall that $\mathcal{D}_5 = \mathbb{F}Q/I$ is given by

$$Q: 1 \xrightarrow{\alpha_1} 3 \xrightarrow{\mu_3} 4 \xrightarrow{\mu_4} 5$$

$$2 \xrightarrow{\beta_2} 3 \xrightarrow{\nu_3} 4 \xrightarrow{\nu_4} 5$$

with

$$I: \left\langle \begin{array}{c} \alpha_{2}\beta_{2}, \alpha_{1}\beta_{1}, \alpha_{2}\beta_{1}\alpha_{1}, \beta_{1}\alpha_{1}\beta_{2}, \alpha_{2}\mu_{3}, \alpha_{1}\mu_{3}, \nu_{3}\beta_{2}, \nu_{3}\beta_{1}, \\ \mu_{3}\mu_{4}, \nu_{4}\nu_{3}, \mu_{3}\nu_{3} - \beta_{1}\alpha_{1}, \nu_{3}\mu_{3} - \mu_{4}\nu_{4} \end{array} \right\rangle.$$

Then, the complete list of g-vectors for \mathcal{D}_5 is as follows.

$$\begin{pmatrix}
1 & 0 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0 \\
0 & 0 & 1 & 0 & 0 \\
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 1
\end{pmatrix}$$

$$(2) \begin{pmatrix} -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 1 & -1 \\
0 & 0 & 1 & 0 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\mathbf{(4)} \begin{pmatrix} 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
1 & 0 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\mathbf{(6)} \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(7) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 1 & 0 & 0 \\
0 & 0 & 0 & 1 & -1 \\
0 & 1 & 0 & 0 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\mathbf{(9)} \begin{pmatrix} 1 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(10) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
0 & 0 & 0 & 1 & -1 \\
0 & 0 & 1 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$(12) \begin{pmatrix} 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(13) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(14) \begin{pmatrix} 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 1 & -1 & 1 \\
0 & 0 & 0 & 0 & 1 \\
-1 & 0 & 1 & 0 & 0 \\
0 & 0 & 1 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$(17) \begin{pmatrix} 2 & 0 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$(19) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & -1 & 1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(20) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
-1 & 0 & 1 & 0 & 0 \\
-1 & 1 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$(22) \begin{pmatrix} 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -1 & 1 & -1 \\
0 & 0 & 0 & 1 & -1 \\
0 & 1 & 0 & 0 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(24) \begin{pmatrix} -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(25) \begin{pmatrix} 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(26) \begin{pmatrix} 1 & 1 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(27) \begin{pmatrix} 2 & 0 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 1 & -1 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
0 & -1 & 1 & 0 & 0 \\
0 & 0 & 0 & 1 & -1 \\
1 & -1 & 0 & 0 & 0 \\
1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
0 & -1 & 1 & 0 & 0 \\
0 & 0 & 0 & 1 & -1 \\
0 & 0 & 1 & 0 & 0
\end{pmatrix}$$

$$(31) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(32) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 1 & -1 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 1 & -1 & 1 \\
0 & -1 & 1 & 0 & 0 \\
0 & 0 & 1 & 0 & 0 \\
0 & 0 & 1 & -1 & 0 \\
1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 1 & -1 & 1 \\
-1 & 0 & 1 & 0 & 0 \\
0 & 0 & 1 & 0 & 0 \\
0 & 0 & 1 & -1 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$(35) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 1 & -1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(36) \begin{pmatrix} 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(37) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(38) \begin{pmatrix} 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & -1 & 1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(39) \begin{pmatrix} 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \end{pmatrix}$$

$$(40) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(41) \begin{pmatrix} 1 & 1 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$\mathbf{(42)} \begin{pmatrix} 2 & 0 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 1 & -1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(43) \begin{pmatrix} 0 & 1 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(45) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{pmatrix}$$

$$(46) \begin{pmatrix} 0 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(47) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{pmatrix}$$

$$(48) \begin{pmatrix} 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & -1 & 1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(49) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
-1 & -1 & 1 & 0 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
0 & -1 & 1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & 0 & 1 & -1 & 1 \\
0 & 0 & 0 & 0 & 1 \\
-1 & 0 & 1 & 0 & 0 \\
-1 & 1 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
-2 & 0 & 1 & 0 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
-1 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0 \\
0 & 0 & 1 & -1 & 0 \\
0 & 0 & 0 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & 0 & 1 & 0 & 0 \\
0 & 0 & 1 & 0 & 0 \\
0 & 0 & 1 & -1 & 0 \\
0 & 1 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(55) \begin{pmatrix} 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
0 & 1 & 0 & 0 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(57) \begin{pmatrix} 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(58) \begin{pmatrix} 2 & 0 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(59) \begin{pmatrix} -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
0 & -1 & 1 & 0 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
0 & 0 & 1 & 0 & 0 \\
0 & 0 & 0 & 1 & -1 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
0 & -1 & 1 & 0 & 0 \\
0 & 0 & 0 & 1 & -1 \\
1 & -1 & 0 & 0 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & -1 \\
0 & 0 & 0 & 1 & -1 \\
1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & -1 \\
0 & 0 & 0 & 1 & -1 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 1 & -1 \\
1 & -1 & 0 & 0 & 0 \\
1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & 0 \\
2 & 0 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 1 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 1 & -1 \\
-1 & 1 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 1 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 1 & -1 \\
0 & -1 & 1 & 0 & 0 \\
1 & -1 & 0 & 0 & 0 \\
0 & -1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
-1 & -1 & 1 & 0 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
0 & -1 & 1 & 0 & 0 \\
0 & 0 & 0 & 1 & -1
\end{pmatrix}$$

$$(70) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ -1 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(71) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(72) \begin{pmatrix} 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 1 & -1 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(73) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(74) \begin{pmatrix} 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(75) \begin{pmatrix} 0 & 0 & 1 & -1 & 1 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(76) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(77) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(78) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 1 & -1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(79) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & -1 & 1 & -1 & 1 \\
0 & 0 & 0 & -1 & 1 \\
0 & 0 & 0 & 0 & 1 \\
1 & -1 & 0 & 0 & 0 \\
1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & 0 & 1 & -1 & 1 \\
0 & -1 & 1 & -1 & 1 \\
0 & 0 & 0 & -1 & 1 \\
0 & 0 & 1 & -1 & 1 \\
0 & 0 & 0 & 0 & 1
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & 0 & 1 & -1 & 1 \\
0 & 0 & 0 & -1 & 1 \\
0 & 0 & 0 & 0 & 1 \\
-1 & 1 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 2 & -1 & 1 \\
0 & -1 & 1 & -1 & 1 \\
0 & 0 & 1 & -1 & 1 \\
0 & 0 & 0 & 0 & 1 \\
0 & -1 & 1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 2 & -1 & 1 \\
0 & 0 & 1 & -1 & 1 \\
0 & 0 & 0 & 0 & 1 \\
-1 & 0 & 1 & 0 & 0 \\
0 & -1 & 1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 2 & -1 & 1 \\
-1 & 0 & 1 & -1 & 1 \\
0 & 0 & 1 & -1 & 1 \\
0 & 0 & 0 & 0 & 1 \\
-1 & 0 & 1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
2 & 0 & -1 & 0 & 0 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & 0 \\
2 & 0 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
1 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$(90) \begin{pmatrix} 0 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$(91) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$(92) \begin{pmatrix} 2 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(93) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(94) \begin{pmatrix} 0 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 0 & 1 \\
0 & 0 & 0 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
-1 & 1 & 0 & 0 & 0 \\
-1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 1
\end{pmatrix}$$

$$(97) \begin{pmatrix} 0 & -1 & 1 & -1 & 1 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 0 & 1 \\
0 & -1 & 1 & -1 & 1 \\
0 & -1 & 1 & 0 & 0 \\
1 & -1 & 0 & 0 & 0 \\
0 & -1 & 0 & 0 & 0
\end{pmatrix}$$

$$(99) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 1 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(100) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 1 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(101) \begin{pmatrix} -1 & -1 & 2 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & -1 & 1 & 0 & 0 \end{pmatrix}$$

$$(102) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \end{pmatrix}$$

$$(103) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ -1 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(104) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ -1 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 0 & 1 \\
0 & 0 & 0 & 1 & 0 \\
-2 & 0 & 1 & 0 & 0 \\
-1 & 1 & 0 & 0 & 0 \\
-1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$(106) \begin{pmatrix} 1 & 1 & -1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(107) \begin{pmatrix} 0 & -1 & 1 & -1 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(108) \begin{pmatrix} -1 & 0 & 1 & -1 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(109) \begin{pmatrix} -1 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(110) \begin{pmatrix} 0 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
0 & -1 & 1 & 0 & 0 \\
0 & -1 & 1 & -1 & 0 \\
0 & 0 & 1 & -1 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(112) \begin{pmatrix} 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 1 & -1 \\
1 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(114) \begin{pmatrix} 0 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(115) \begin{pmatrix} 1 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 1 & -1 \\
0 & 0 & 0 & 1 & -1 \\
1 & -1 & 0 & 0 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(117) \begin{pmatrix} 1 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & 0 & 1 & 0 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
-1 & 1 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
-2 & 0 & 1 & 0 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
0 & 0 & 0 & 1 & -1 \\
-1 & 1 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(120) \begin{pmatrix} -1 & -1 & 1 & 0 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(121) \begin{pmatrix} 0 & -1 & 1 & 0 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(122) \begin{pmatrix} 0 & 0 & 0 & 1 & -1 \\ 0 & -1 & 1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 1 & 0 \\
2 & 0 & -1 & 1 & -1 \\
1 & 1 & -1 & 1 & -1 \\
0 & 0 & 0 & 1 & -1 \\
1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$(124) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 1 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 1 & -1 \\
0 & 0 & 0 & 1 & -1 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & -1 \\
0 & 0 & 0 & 1 & -1
\end{pmatrix}$$

$$(127) \begin{pmatrix} 2 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(128) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 1 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & -1 \\
0 & 0 & 0 & 1 & -1 \\
-1 & 1 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & -1 \\
-1 & 1 & 0 & 0 & 0 \\
-1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 1 & -1
\end{pmatrix}$$

$$(132) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(133) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
-2 & 0 & 1 & 0 & 0 \\
-1 & -1 & 1 & 0 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
0 & 0 & 0 & 1 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 1 & -1 \\
-2 & 0 & 1 & 0 & 0 \\
-1 & 1 & 0 & 0 & 0 \\
-1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & -1 & 1 \\
-1 & 0 & 1 & -1 & 0 \\
0 & 1 & 0 & 0 & 0 \\
0 & 0 & 1 & -1 & 0 \\
0 & 0 & 0 & -1 & 0
\end{pmatrix}$$

$$(137) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & -1 & 1 & -1 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(138) \begin{pmatrix} 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & 0 & 1 & -1 & 1 \\
0 & -1 & 1 & -1 & 1 \\
0 & 0 & 0 & -1 & 1 \\
0 & 0 & 1 & -1 & 1 \\
0 & 0 & 1 & -1 & 0
\end{pmatrix}$$

$$(140) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & -1 & 1 & -1 & 1 \\
0 & -1 & 1 & 0 & 0 \\
0 & -1 & 1 & -1 & 0 \\
0 & 0 & 1 & -1 & 0 \\
1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$(142) \begin{pmatrix} -1 & -1 & 2 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 2 & -1 & 1 \\
0 & 0 & 1 & -1 & 1 \\
-1 & 0 & 1 & 0 & 0 \\
0 & -1 & 1 & 0 & 0 \\
0 & 0 & 1 & -1 & 0
\end{pmatrix}$$

$$(144) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ -1 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 2 & -1 & 1 \\
-1 & 0 & 1 & -1 & 1 \\
0 & 0 & 1 & -1 & 1 \\
-1 & 0 & 1 & 0 & 0 \\
0 & 0 & 1 & -1 & 0
\end{pmatrix}$$

$$(146) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 1 & 0 & 0 & 0 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & -1 & 1 \\
2 & 0 & -1 & 0 & 0 \\
1 & 0 & 0 & 0 & 0 \\
1 & 1 & -1 & 0 & 0 \\
0 & 0 & 0 & -1 & 0
\end{pmatrix}$$

$$(148) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(149) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & -1 & 0 & 0 & 0 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(150) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & -1 & 1 \\
0 & 0 & 0 & 0 & 1 \\
-1 & 1 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0 \\
0 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$(152) \begin{pmatrix} 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & -1 & 1 & -1 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 0 & 1 \\
0 & 0 & 0 & -1 & 1 \\
0 & -1 & 1 & -1 & 1 \\
1 & -1 & 0 & 0 & 0 \\
0 & -1 & 0 & 0 & 0
\end{pmatrix}$$

$$(154) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \end{pmatrix}$$

$$(155) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -1 & 0 & 1 & -1 & 0 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(156) \begin{pmatrix} -2 & 0 & 1 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(157) \begin{pmatrix} -1 & -1 & 2 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ 0 & -1 & 1 & 0 & 0 \end{pmatrix}$$

$$(158) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ -1 & -1 & 2 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \end{pmatrix}$$

$$(159) \begin{pmatrix} -1 & -1 & 2 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 1 & 0 \\
2 & 0 & -1 & 1 & -1 \\
1 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & 0 \\
2 & 0 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 1 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
0 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$\begin{array}{c}
 \left(164 \right) \\
 \left(2 \quad 0 \quad -1 \quad 1 \quad 0 \\
 2 \quad 0 \quad -1 \quad 1 \quad -1 \\
 2 \quad 0 \quad -1 \quad 0 \quad 0 \\
 1 \quad 1 \quad -1 \quad 0 \quad 0 \\
 1 \quad 0 \quad 0 \quad 0 \quad 0
 \end{array} \right)$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & 0 \\
2 & 0 & -1 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
2 & 0 & -1 & 0 & 0 \\
1 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 1 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
0 & 1 & 0 & 0 & 0 \\
0 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$(167) \begin{pmatrix} 1 & 1 & -2 & 1 & 0 \\ 0 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 1 & 0 \\
1 & 0 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
1 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 1 & 0 \\
2 & 0 & -1 & 1 & -1 \\
2 & 0 & -1 & 0 & 0 \\
1 & -1 & 0 & 0 & 0 \\
1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$(170) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 1 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & -1 \\
-1 & 1 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0 \\
0 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$(172) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 1 & -1 & 1 & 0 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(173) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 1 & -1 & 1 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(174) \begin{pmatrix} 1 & 1 & -2 & 1 & 0 \\ 0 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{pmatrix}$$

$$(175) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 1 & 0 \\ 1 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(176) \begin{pmatrix} 0 & -1 & 1 & -1 & 1 \\ 0 & -1 & 1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(177) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(178) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(179) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(180) \begin{pmatrix} -1 & -1 & 2 & -1 & 1 \\ -1 & -1 & 2 & -1 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & -1 & 1 & 0 & 0 \end{pmatrix}$$

$$(181) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \end{pmatrix}$$

$$(182) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 1 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & 0 & 1 & -1 & 1 \\
-2 & 0 & 1 & 0 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
-1 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-2 & 0 & 1 & -1 & 1 \\
-1 & 0 & 1 & -1 & 1 \\
0 & 0 & 0 & 0 & 1 \\
-2 & 0 & 1 & 0 & 0 \\
-1 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 0 & 0 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(187) \begin{pmatrix} 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
1 & -1 & 0 & 0 & 0 \\
0 & -1 & 1 & -1 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(189) \begin{pmatrix} -1 & 0 & 1 & -1 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(190) \begin{pmatrix} -1 & 1 & 0 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 2 & -1 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
0 & 0 & 1 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(192) \begin{pmatrix} -1 & -1 & 2 & -1 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 2 & -1 & 0 \\
0 & -1 & 1 & 0 & 0 \\
0 & -1 & 1 & -1 & 0 \\
0 & 0 & 1 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(194) \begin{pmatrix} 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(195) \begin{pmatrix} 1 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 1 & -1 \\
2 & 0 & -1 & 0 & 0 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(197) \begin{pmatrix} 1 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(198) \begin{pmatrix} 0 & 1 & -1 & 1 & -1 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(199) \begin{pmatrix} 0 & 0 & 0 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ -1 & 1 & 0 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(200) \begin{pmatrix} 0 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(201) \begin{pmatrix} 2 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(202) \begin{pmatrix} 1 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(203) \begin{pmatrix} -2 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(204) \begin{pmatrix} 0 & 0 & 0 & 1 & -1 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & 1 & 0 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(205) \begin{pmatrix} -1 & -1 & 1 & 0 & 0 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(206) \begin{pmatrix} -1 & -1 & 2 & -1 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(207) \begin{pmatrix} 0 & 0 & 0 & 1 & -1 \\ 0 & -1 & 1 & 0 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(208) \begin{pmatrix} 0 & -1 & 1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(209) \begin{pmatrix} 1 & 0 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(210) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

$$(211) \begin{pmatrix} 1 & 1 & -2 & 2 & -1 \\ 0 & 1 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

$$(212) \begin{pmatrix} 1 & 1 & -2 & 2 & -1 \\ 1 & 0 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

$$(213) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(214) \begin{pmatrix} 0 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ -1 & 1 & 0 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & -1 \\
-1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$(216) \begin{pmatrix} 1 & 1 & -2 & 2 & -1 \\ 0 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

$$(217) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ 1 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(218) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(219) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(220) \begin{pmatrix} 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ -1 & -1 & 1 & 0 & 0 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(221) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ -1 & 1 & 0 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(222) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & -1 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & -1 & 1 \\
1 & -1 & 0 & 0 & 0 \\
0 & -1 & 1 & -1 & 0 \\
1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & -1 & 0
\end{pmatrix}$$

$$(224) \begin{pmatrix} -1 & -1 & 2 & -2 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(225) \begin{pmatrix} -1 & -1 & 2 & -2 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(226) \begin{pmatrix} -1 & -1 & 2 & -2 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(227) \begin{pmatrix} 0 & -1 & 1 & -1 & 1 \\ -1 & -1 & 2 & -1 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(228) \begin{pmatrix} -1 & -1 & 2 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ -1 & -1 & 2 & -1 & 0 \\ 0 & -1 & 1 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & 0 & 1 & -1 & 1 \\
-1 & -1 & 2 & -1 & 1 \\
0 & -1 & 1 & -1 & 1 \\
0 & 0 & 1 & -1 & 1 \\
0 & 0 & 1 & -1 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 2 & -1 & 1 \\
-1 & -1 & 2 & -1 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
0 & -1 & 1 & 0 & 0 \\
0 & 0 & 1 & -1 & 0
\end{pmatrix}$$

$$(231) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ -1 & -1 & 2 & -1 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(232) \begin{pmatrix} -1 & -1 & 2 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ -1 & -1 & 2 & -1 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(233) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(234) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(235) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 1 & -1 & 0 & 0 & 0 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(236) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(237) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & -1 & 0 & 0 & 0 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(238) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(239) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(240) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(241) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(242) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(243) \begin{pmatrix} -1 & -1 & 2 & -2 & 1 \\ -1 & -1 & 1 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \end{pmatrix}$$

$$(244) \begin{pmatrix} -2 & 0 & 1 & -1 & 1 \\ -1 & -1 & 1 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \end{pmatrix}$$

$$(245) \begin{pmatrix} -2 & 0 & 1 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -1 & 0 & 1 & -1 & 0 \\ -1 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(246) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -2 & 0 & 1 & -1 & 1 \\ -1 & 1 & 0 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(247) \begin{pmatrix} -1 & -1 & 2 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ -1 & -1 & 2 & -1 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ 0 & -1 & 1 & 0 & 0 \end{pmatrix}$$

$$(248) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ -1 & -1 & 2 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & -1 & 1 & 0 & 0 \end{pmatrix}$$

$$(249) \begin{pmatrix} -1 & -1 & 2 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ -1 & -1 & 2 & -1 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \end{pmatrix}$$

$$(250) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$(251) \begin{pmatrix} 1 & 1 & -2 & 2 & -1 \\ 0 & 1 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$(252) \begin{pmatrix} 1 & 1 & -2 & 2 & -1 \\ 1 & 0 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & 0 \\ 1 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$(253) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$(254) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
0 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$(256) \begin{pmatrix} 1 & 1 & -2 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(257) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 1 & 1 & -2 & 1 & 0 \\ 0 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 2 & -1 \\
1 & 1 & -2 & 1 & 0 \\
1 & 0 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
1 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$(259) \begin{pmatrix} 1 & 1 & -2 & 1 & 0 \\ 1 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(260) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & 0 \\ 2 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(261) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(262) \begin{pmatrix} 0 & 1 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & -1 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & -1 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
0 & 1 & -1 & 1 & 0 \\
0 & 1 & -1 & 0 & 0 \\
-1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
0 & 0 & -1 & 1 & 0 \\
-1 & 0 & 0 & 0 & 0 \\
0 & -1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 2 & -1 \\
1 & 1 & -2 & 1 & 0 \\
0 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 1 & 0 \\
0 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
1 & 0 & -1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 0 & 1 \\
1 & 0 & -1 & 1 & 0 \\
0 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 0 & 0 \\
0 & -1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & -1 & 1 & -1 & 1 \\
-1 & -1 & 1 & 0 & 0 \\
0 & -1 & 1 & 0 & 0 \\
0 & -1 & 1 & -1 & 0 \\
0 & -1 & 0 & 0 & 0
\end{pmatrix}$$

$$(269) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(270) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & -1 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(271) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(272) \begin{pmatrix} -1 & 0 & 1 & -1 & 1 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(273) \begin{pmatrix} -2 & 0 & 1 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & -1 & 1 & 0 & 0 \end{pmatrix}$$

$$(274) \begin{pmatrix} -2 & 0 & 1 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(275) \begin{pmatrix} -2 & 0 & 1 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ -1 & 1 & 0 & 0 & 0 \end{pmatrix}$$

$$(276) \begin{pmatrix} -2 & 0 & 1 & -1 & 1 \\ -2 & 0 & 1 & 0 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 1 & 0 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
2 & 0 & -1 & 0 & 0 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & -1 & 0 & 0 \\
0 & 0 & 0 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(278) \begin{pmatrix} 1 & -1 & 0 & 0 & 0 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(279) \begin{pmatrix} 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & 1 & 0 & 0 & 0 \\
0 & 1 & 0 & 0 & 0 \\
0 & 1 & -1 & 0 & 0 \\
0 & 0 & 0 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(281) \begin{pmatrix} 0 & -1 & 1 & -1 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(282) \begin{pmatrix} -1 & -1 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
-2 & 0 & 1 & -1 & 0 \\
-1 & 1 & 0 & 0 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
0 & 0 & 0 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(284) \begin{pmatrix} -1 & -1 & 2 & -1 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 1 & 0 & 0 \\
-1 & -1 & 2 & -1 & 0 \\
-1 & 0 & 1 & 0 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 1 & 0 & 0 \\
-1 & -1 & 2 & -1 & 0 \\
0 & -1 & 1 & 0 & 0 \\
0 & -1 & 1 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(287) \begin{pmatrix} 1 & 1 & -2 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(288) \begin{pmatrix} 1 & 1 & -2 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(289) \begin{pmatrix} 1 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(290) \begin{pmatrix} 0 & 1 & -1 & 1 & -1 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(291) \begin{pmatrix} 0 & 0 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(292) \begin{pmatrix} 1 & 1 & -2 & 1 & -1 \\ 0 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(293) \begin{pmatrix} 0 & 0 & 0 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 0 & 0 & -1 & 1 & -1 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(294) \begin{pmatrix} 1 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(295) \begin{pmatrix} -2 & 0 & 1 & 0 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(296) \begin{pmatrix} -1 & -1 & 1 & 0 & 0 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(297) \begin{pmatrix} -2 & 0 & 1 & 0 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 1 & 0 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(298) \begin{pmatrix} -1 & -1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(299) \begin{pmatrix} -1 & -1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(300) \begin{pmatrix} 0 & -1 & 1 & 0 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(301) \begin{pmatrix} 1 & 0 & -1 & 1 & -1 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(302) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 1 & -1 \\ 1 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

$$(305) \begin{pmatrix}
 1 & 1 & -2 & 2 & -1 \\
 1 & 0 & -1 & 1 & 0 \\
 1 & 0 & -1 & 1 & -1 \\
 1 & 1 & -1 & 1 & -1 \\
 0 & 0 & 0 & 1 & -1
 \end{pmatrix}$$

$$(306) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 1 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(307) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & 0 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & 0 \\
0 & 0 & -1 & 1 & 0 \\
0 & 0 & 0 & 1 & -1 \\
-1 & 0 & 0 & 0 & 0 \\
0 & -1 & 0 & 0 & 0
\end{pmatrix}$$

$$(309) \begin{pmatrix} 1 & 1 & -2 & 2 & -1 \\ 0 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

$$(310) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & -1 & 1 \\
-2 & 0 & 1 & -1 & 0 \\
-1 & 1 & 0 & 0 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
0 & 0 & 0 & -1 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & -1 & 1 \\
-1 & -1 & 1 & -1 & 0 \\
0 & -1 & 1 & -1 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
0 & 0 & 0 & -1 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & -1 & 1 \\
0 & -1 & 1 & -1 & 0 \\
1 & -1 & 0 & 0 & 0 \\
0 & -1 & 0 & 0 & 0 \\
0 & 0 & 0 & -1 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 2 & -2 & 1 \\
0 & 0 & 0 & -1 & 1 \\
-1 & 0 & 1 & -1 & 0 \\
0 & -1 & 1 & -1 & 0 \\
0 & 0 & 1 & -1 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 1 & -1 & 1 \\
-1 & -1 & 2 & -2 & 1 \\
0 & -1 & 1 & -1 & 1 \\
0 & 0 & 0 & -1 & 1 \\
0 & -1 & 1 & -1 & 0
\end{pmatrix}$$

$$(316) \begin{pmatrix}
 -1 & -1 & 1 & -1 & 1 \\
 -1 & -1 & 2 & -2 & 1 \\
 -1 & 0 & 1 & -1 & 1 \\
 0 & 0 & 0 & -1 & 1 \\
 -1 & 0 & 1 & -1 & 0
 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 2 & -2 & 1 \\
0 & -1 & 1 & -1 & 1 \\
-1 & -1 & 2 & -1 & 0 \\
0 & -1 & 1 & -1 & 0 \\
0 & 0 & 1 & -1 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & -1 & 1 & -1 & 1 \\
-1 & -1 & 1 & 0 & 0 \\
-1 & -1 & 2 & -1 & 0 \\
0 & -1 & 1 & 0 & 0 \\
0 & -1 & 1 & -1 & 0
\end{pmatrix}$$

$$(319) \begin{pmatrix}
 -1 & 0 & 1 & -1 & 1 \\
 -1 & -1 & 2 & -1 & 1 \\
 0 & -1 & 1 & -1 & 1 \\
 -1 & -1 & 2 & -1 & 0 \\
 0 & 0 & 1 & -1 & 0
 \end{pmatrix}$$

$$(320) \begin{pmatrix}
 -1 & -1 & 2 & -2 & 1 \\
 -1 & 0 & 1 & -1 & 1 \\
 -1 & -1 & 2 & -1 & 0 \\
 -1 & 0 & 1 & -1 & 0 \\
 0 & 0 & 1 & -1 & 0$$

$$(322) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(323) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(324) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 1 & -1 & 0 & 0 & 0 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(325) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(326) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(327) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(328) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(329) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & -1 & 1 & -1 & 1 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(330)
 \begin{pmatrix}
 -2 & 0 & 1 & -1 & 1 \\
 -1 & -1 & 1 & -1 & 1 \\
 -1 & 0 & 1 & -1 & 1 \\
 0 & 0 & 0 & -1 & 1 \\
 -1 & 0 & 1 & -1 & 0
 \end{pmatrix}$$

$$(331) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -1 & -1 & 1 & -1 & 1 \\ -2 & 0 & 1 & -1 & 1 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
-2 & 0 & 1 & -1 & 1 \\
0 & 0 & 0 & -1 & 1 \\
-2 & 0 & 1 & -1 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
-1 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & -1 & 1 \\
-2 & 0 & 1 & -1 & 1 \\
-2 & 0 & 1 & -1 & 0 \\
-1 & 1 & 0 & 0 & 0 \\
-1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & 0 & 1 & -1 & 1 \\
-1 & -1 & 2 & -1 & 1 \\
0 & -1 & 1 & -1 & 1 \\
-1 & -1 & 2 & -1 & 0 \\
-1 & -1 & 1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 1 & -1 & 1 \\
-1 & 0 & 1 & -1 & 1 \\
0 & -1 & 1 & -1 & 1 \\
0 & 0 & 0 & 0 & 1 \\
-1 & -1 & 1 & 0 & 0
\end{pmatrix}$$

$$(336) \begin{pmatrix}
 1 & 0 & -1 & 1 & 0 \\
 1 & 0 & -1 & 1 & -1 \\
 2 & 0 & -1 & 1 & -1 \\
 1 & 1 & -1 & 1 & -1 \\
 1 & 1 & -1 & 0 & 0
 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 1 & 0 \\
1 & 1 & -2 & 2 & -1 \\
0 & 1 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$(339) \begin{pmatrix}
 1 & 1 & -2 & 2 & -1 \\
 1 & 0 & -1 & 1 & 0 \\
 1 & 0 & -1 & 1 & -1 \\
 1 & 1 & -1 & 1 & -1 \\
 1 & 1 & -1 & 0 & 0
 \end{pmatrix}$$

$$(340) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & -1 \\
2 & 0 & -1 & 0 & 0 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & -1 & 0 & 0
\end{pmatrix}$$

$$(342) \begin{pmatrix} 1 & 1 & -2 & 1 & 0 \\ 1 & 1 & -2 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & -1 & 1 & 0 \\
1 & 1 & -2 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & -1 \\
0 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 1 & 0 \\
1 & 1 & -2 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
0 & 1 & -1 & 0 & 0 \\
1 & 0 & -1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & -1 & 1 & 0 \\
1 & 1 & -2 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 \\
0 & 1 & -1 & 0 & 0 \\
1 & 0 & -1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 2 & -1 \\
1 & 1 & -2 & 1 & 0 \\
1 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 1 & 0 \\
1 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & -1 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & -1 \\
2 & 0 & -1 & 1 & -1 \\
2 & 0 & -1 & 0 & 0 \\
1 & -1 & 0 & 0 & 0
\end{pmatrix}$$

$$(349) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & -1 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(350) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 0 & 1 \\
0 & 0 & -1 & 1 & 0 \\
0 & 1 & -1 & 0 & 0 \\
-1 & 0 & 0 & 0 & 0 \\
0 & 0 & -1 & 0 & 0
\end{pmatrix}$$

$$(352) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 2 & -1 \\
1 & 1 & -2 & 1 & 0 \\
0 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 2 & -1 \\
1 & 1 & -2 & 1 & 0 \\
0 & 0 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & 0 \\
0 & 1 & -1 & 1 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 1 & 0 \\
0 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & 0 \\
1 & 0 & -1 & 1 & -1 \\
1 & 0 & -1 & 0 & 0
\end{pmatrix}$$

$$(356) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(357) \begin{pmatrix} 1 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & 0 \\ 1 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 1 & -1 & 1 \\
0 & -1 & 1 & -1 & 1 \\
-1 & -1 & 1 & 0 & 0 \\
0 & -1 & 1 & -1 & 0 \\
0 & -1 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 1 & -1 & 1 \\
-1 & -1 & 1 & 0 & 0 \\
-1 & -1 & 1 & -1 & 0 \\
-1 & 0 & 0 & 0 & 0 \\
0 & -1 & 0 & 0 & 0
\end{pmatrix}$$

$$(360) \begin{pmatrix}
 -2 & 0 & 1 & -1 & 1 \\
 -1 & 0 & 1 & -1 & 1 \\
 -2 & 0 & 1 & 0 & 0 \\
 -1 & -1 & 1 & 0 & 0 \\
 -1 & 0 & 1 & -1 & 0
 \end{pmatrix}$$

$$(361) \begin{pmatrix}
 -1 & -1 & 1 & -1 & 1 \\
 -2 & 0 & 1 & -1 & 1 \\
 -1 & 0 & 1 & -1 & 1 \\
 0 & 0 & 0 & 0 & 1 \\
 -1 & -1 & 1 & 0 & 0
 \end{pmatrix}$$

$$(362) \begin{pmatrix}
 -2 & 0 & 1 & -1 & 1 \\
 -1 & -1 & 1 & 0 & 0 \\
 -2 & 0 & 1 & 0 & 0 \\
 -2 & 0 & 1 & -1 & 0 \\
 -1 & 0 & 0 & 0 & 0
 \end{pmatrix}$$

$$(363) \begin{pmatrix}
 -1 & -1 & 1 & -1 & 1 \\
 -2 & 0 & 1 & -1 & 1 \\
 0 & 0 & 0 & 0 & 1 \\
 -1 & -1 & 1 & 0 & 0 \\
 -1 & 0 & 0 & 0 & 0
 \end{pmatrix}$$

$$\begin{pmatrix}
-2 & 0 & 1 & -1 & 1 \\
-2 & 0 & 1 & 0 & 0 \\
-2 & 0 & 1 & -1 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
-1 & 1 & 0 & 0 & 0
\end{pmatrix}$$

$$(365) \begin{pmatrix} 1 & -1 & 0 & 0 & 0 \\ 2 & 0 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(366) \begin{pmatrix} 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(367) \begin{pmatrix} -1 & 1 & 0 & 0 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 1 & -1 & 0 \\
0 & -1 & 1 & -1 & 0 \\
0 & -1 & 0 & 0 & 0 \\
0 & 0 & 0 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(369) \begin{pmatrix} 1 & -1 & 0 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
-2 & 0 & 1 & -1 & 0 \\
-1 & -1 & 1 & -1 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
0 & 0 & 0 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & 1 & 0 & 0 & 0 \\
-2 & 0 & 1 & -1 & 0 \\
-1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(372) \begin{pmatrix} -1 & -1 & 1 & 0 & 0 \\ -1 & -1 & 2 & -1 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
0 & 1 & -1 & 0 & 0 \\
1 & 0 & -1 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(374) \begin{pmatrix} 0 & 0 & -1 & 1 & -1 \\ 1 & 1 & -2 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 1 & -2 & 1 & -1 \\
1 & 0 & -1 & 1 & -1 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & -1 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & -1 \\
2 & 0 & -1 & 0 & 0 \\
1 & 1 & -1 & 0 & 0 \\
1 & 0 & -1 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(377) \begin{pmatrix} 0 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & 0 & 1 & -1 \\
0 & 0 & -1 & 1 & -1 \\
-1 & 0 & 0 & 0 & 0 \\
0 & -1 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(379) \begin{pmatrix} 1 & 1 & -2 & 1 & -1 \\ 0 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & -1 \\
0 & 0 & -1 & 1 & -1 \\
1 & 0 & -1 & 0 & 0 \\
0 & -1 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
1 & 0 & -1 & 1 & -1 \\
2 & 0 & -1 & 0 & 0 \\
1 & -1 & 0 & 0 & 0 \\
1 & 0 & -1 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 1 & 0 & 0 \\
-2 & 0 & 1 & 0 & 0 \\
-2 & 0 & 1 & -1 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 1 & 0 & 0 \\
-2 & 0 & 1 & 0 & 0 \\
-2 & 0 & 1 & -1 & 0 \\
-1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$(384) \begin{pmatrix} -1 & -1 & 1 & 0 & 0 \\ -1 & -1 & 1 & -1 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 1 & 0 & 0 \\
-1 & -1 & 1 & -1 & 0 \\
0 & -1 & 1 & -1 & 0 \\
0 & -1 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & -1
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & -1 & 1 & 0 \\
0 & 0 & -1 & 1 & -1 \\
0 & 0 & 0 & 1 & -1 \\
0 & 1 & -1 & 1 & -1 \\
-1 & 0 & 0 & 0 & 0
\end{pmatrix}$$

$$\begin{pmatrix}
0 & 0 & -1 & 1 & 0 \\
0 & 0 & -1 & 1 & -1 \\
0 & 0 & 0 & 1 & -1 \\
-1 & 0 & 0 & 0 & 0 \\
0 & -1 & 0 & 0 & 0
\end{pmatrix}$$

$$(389)
 \begin{pmatrix}
 0 & 0 & -1 & 1 & 0 \\
 0 & 0 & -1 & 1 & -1 \\
 1 & 0 & -1 & 1 & -1 \\
 0 & 0 & 0 & 1 & -1 \\
 0 & -1 & 0 & 0 & 0
 \end{pmatrix}$$

$$(390) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ -1 & 1 & 0 & 0 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(392) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & -1 & 1 & -1 & 0 \\ -1 & -1 & 1 & -1 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(393) \begin{pmatrix}
 -1 & -1 & 1 & -1 & 1 \\
 -1 & -1 & 2 & -2 & 1 \\
 0 & 0 & 0 & -1 & 1 \\
 -1 & 0 & 1 & -1 & 0 \\
 0 & -1 & 1 & -1 & 0$$

$$\begin{pmatrix}
-1 & -1 & 2 & -2 & 1 \\
-1 & -1 & 2 & -1 & 0 \\
-1 & 0 & 1 & -1 & 0 \\
0 & -1 & 1 & -1 & 0 \\
0 & 0 & 1 & -1 & 0
\end{pmatrix}$$

$$(395) \begin{pmatrix}
 -1 & -1 & 2 & -2 & 1 \\
 0 & -1 & 1 & -1 & 1 \\
 -1 & -1 & 1 & 0 & 0 \\
 -1 & -1 & 2 & -1 & 0 \\
 0 & -1 & 1 & -1 & 0
 \end{pmatrix}$$

$$(396) \begin{pmatrix}
 -1 & -1 & 2 & -2 & 1 \\
 -1 & 0 & 1 & -1 & 1 \\
 0 & -1 & 1 & -1 & 1 \\
 -1 & -1 & 2 & -1 & 0 \\
 0 & 0 & 1 & -1 & 0
 \end{pmatrix}$$

$$\begin{pmatrix}
-1 & -1 & 2 & -2 & 1 \\
-1 & 0 & 1 & -1 & 1 \\
-1 & -1 & 1 & 0 & 0 \\
-1 & -1 & 2 & -1 & 0 \\
-1 & 0 & 1 & -1 & 0
\end{pmatrix}$$

$$(398) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(399) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(400) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(401) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -1 & -1 & 1 & -1 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(403) \begin{pmatrix} -2 & 0 & 1 & -1 & 1 \\ -1 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(404) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ -1 & -1 & 1 & -1 & 1 \\ -2 & 0 & 1 & -1 & 1 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(405) \begin{pmatrix} -1 & -1 & 2 & -2 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ -1 & -1 & 2 & -1 & 0 \\ -1 & -1 & 1 & 0 & 0 \end{pmatrix}$$

$$(406) \begin{pmatrix} -1 & -1 & 2 & -2 & 1 \\ -1 & -1 & 1 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \end{pmatrix}$$

$$(407) \begin{pmatrix} 1 & 1 & -2 & 1 & 0 \\ 1 & 1 & -2 & 2 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$(408) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 1 & 1 & -2 & 1 & 0 \\ 1 & 1 & -2 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$(409) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 1 & 1 & -2 & 1 & 0 \\ 1 & 1 & -2 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(410) \begin{pmatrix} 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & -1 & 1 & 0 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(411) \begin{pmatrix} 1 & 1 & -2 & 1 & 0 \\ 1 & 1 & -2 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(412) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(413) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(414) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & -1 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(415) \begin{pmatrix} 1 & 1 & -2 & 2 & -1 \\ 1 & 1 & -2 & 1 & 0 \\ 0 & 0 & -1 & 1 & 0 \\ 0 & 1 & -1 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \end{pmatrix}$$

$$(416) \begin{pmatrix} 1 & 1 & -2 & 1 & 0 \\ 0 & 0 & -1 & 1 & 0 \\ 1 & 1 & -2 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(417) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(418) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(419) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & -1 & 1 & -1 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ 0 & -1 & 0 & 0 & 0 \end{pmatrix}$$

$$(420) \begin{pmatrix} -2 & 0 & 1 & -1 & 1 \\ -2 & 0 & 1 & 0 & 0 \\ -1 & -1 & 1 & 0 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(421) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ -2 & 0 & 1 & -1 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(422) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ -2 & 0 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(423) \begin{pmatrix} 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(424) \begin{pmatrix} 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(425) \begin{pmatrix} -1 & -1 & 1 & -1 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(426) \begin{pmatrix} -1 & -1 & 1 & -1 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(427) \begin{pmatrix} -1 & -1 & 1 & 0 & 0 \\ -1 & -1 & 1 & -1 & 0 \\ 0 & -1 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(428) \begin{pmatrix} 0 & 0 & -1 & 1 & -1 \\ 1 & 1 & -2 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(429) \begin{pmatrix} 0 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(430) \begin{pmatrix} 0 & 0 & -1 & 1 & -1 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(431) \begin{pmatrix} 0 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(432) \begin{pmatrix} -1 & -1 & 1 & 0 & 0 \\ -1 & -1 & 1 & -1 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(433) \begin{pmatrix} -1 & -1 & 1 & 0 & 0 \\ -1 & -1 & 1 & -1 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(434) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

$$(435) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ -1 & -1 & 1 & -1 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(436) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ -1 & -1 & 1 & -1 & 0 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(437) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -1 & -1 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & -1 & 1 & -1 & 0 \end{pmatrix}$$

$$(438) \begin{pmatrix} -1 & -1 & 2 & -2 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & -1 & 2 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & -1 & 1 & -1 & 0 \end{pmatrix}$$

$$(439) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ -1 & -1 & 2 & -2 & 1 \\ 0 & -1 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ 0 & -1 & 1 & -1 & 0 \end{pmatrix}$$

$$(440) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ -1 & -1 & 2 & -2 & 1 \\ -1 & 0 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(441) \begin{pmatrix} 0 & 0 & 0 & -1 & 1 \\ -1 & 0 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & -1 & 0 \end{pmatrix}$$

$$(442) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ 0 & 0 & 0 & -1 & 1 \\ -1 & -1 & 1 & -1 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(444) \begin{pmatrix} 1 & 1 & -2 & 1 & 0 \\ 1 & 1 & -2 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 1 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$(445) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & -1 \\ 1 & 1 & -2 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \end{pmatrix}$$

$$(446) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & -1 \\ 1 & 1 & -2 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(447) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(448) \begin{pmatrix} 1 & 1 & -2 & 1 & 0 \\ 0 & 0 & -1 & 1 & 0 \\ 1 & 1 & -2 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \end{pmatrix}$$

$$(449) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 0 & 0 & -1 & 1 & -1 \\ 1 & 1 & -2 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 0 & 0 \end{pmatrix}$$

$$(450) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ -2 & 0 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(451) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & -1 & 1 & -1 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 0 & 0 & 0 \end{pmatrix}$$

$$(452) \begin{pmatrix} 0 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 0 & 0 \\ 1 & 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & -1 \end{pmatrix}$$

$$(453) \begin{pmatrix} 0 & 0 & -1 & 1 & 0 \\ 1 & 1 & -2 & 1 & -1 \\ 0 & 0 & -1 & 1 & -1 \\ 1 & 0 & -1 & 1 & -1 \\ 0 & 1 & -1 & 1 & -1 \end{pmatrix}$$

$$(454) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ -1 & -1 & 2 & -2 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & -1 & 1 & -1 & 0 \end{pmatrix}$$

$$(455) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & -1 & 1 & -1 & 0 \\ -2 & 0 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \end{pmatrix}$$

$$(456) \begin{pmatrix} -1 & -1 & 1 & -1 & 1 \\ -1 & -1 & 1 & 0 & 0 \\ -1 & -1 & 1 & -1 & 0 \\ -1 & 0 & 1 & -1 & 0 \\ 0 & -1 & 1 & -1 & 0 \end{pmatrix}$$