



$$K=1 = \left| \begin{array}{cccc|c} 4 & 3 & 2 & -1 & \\ \hline 1 & -3 & 0 & 2 & \\ -1 & 3 & 6 & 1 & \\ -1 & 2 & 0 & 3 & \end{array} \right|$$

$$\xrightarrow{-+1(-)} \left| \begin{array}{cccc|c} 1 & -3 & 0 & 2 & \\ \hline 4 & 3 & 2 & -1 & \\ -1 & 3 & 6 & 1 & \\ -1 & 2 & 0 & 3 & \end{array} \right| \rightarrow$$

$$\rightarrow \left| \begin{array}{cccc|c} 1 & -3 & 0 & 2 & \\ 0 & 15 & 2 & -9 & \\ 0 & 0 & 6 & 5 & \\ 0 & -1 & 0 & 5 & \end{array} \right|$$

$$\rightarrow \left| \begin{array}{cccc|c} 1 & -3 & 0 & 2 & \\ 0 & 15 & 2 & -9 & \\ 0 & -1 & 0 & 5 & \\ 0 & 0 & 6 & 3 & \end{array} \right|$$

$$\rightarrow \left| \begin{array}{cccc|c} 1 & -3 & 0 & 2 & \\ 0 & -1 & 0 & 5 & \\ 0 & 15 & 2 & -9 & \\ 0 & 0 & 6 & 3 & \end{array} \right|$$

$$\begin{array}{c}
 \left( \begin{array}{cccc|c}
 1 & -3 & 0 & 2 & \\
 0 & -1 & 0 & 5 & \\
 0 & 15 & 2 & -9 & \\
 0 & 0 & 6 & 3 & 
 \end{array} \right) \rightarrow \left( \begin{array}{cccc|c}
 1 & -3 & 0 & 2 & \\
 0 & -1 & 0 & 5 & \\
 0 & 0 & 2 & 66 & \\
 0 & 0 & 6 & 3 & 
 \end{array} \right) \rightarrow \left( \begin{array}{cccc|c}
 1 & -3 & 0 & 2 & \\
 0 & -1 & 0 & 5 & \\
 0 & 0 & 2 & 66 & \\
 0 & 0 & 0 & -195 & 
 \end{array} \right) \begin{array}{l} \\ \\ \\ = \end{array} \begin{array}{l} \\ \\ \\ \hline 390 \end{array}
 \end{array}$$

$$|K| = \begin{array}{c} \hline \hline 390 \end{array}$$

$$x - 2y - 3z = 6$$

$$2x - 3y + z = -1$$

$$3x + y + z = 5$$



$$x=2 \ y=1 \ z=-2$$

$$x - 2y - 3z = 6$$

$$0 + y + 7z = -13$$

$$0 + 7y + 10z = -13$$

$$x - 2y - 3z = 6$$

$$0 + y + 7z = -13$$

$$0 + 0 - 39z = 78$$