

$$S_1 = \begin{bmatrix} \textcolor{brown}{0} & \textcolor{brown}{1} & \textcolor{brown}{2} \\ 1 & 11 & 2024 \\ 2 & 12 & 2024 \\ 3 & 11 & 2024 \end{bmatrix} \begin{matrix} \textcolor{blue}{0}, \textcolor{blue}{1} \\ \textcolor{blue}{2} \\ \textcolor{blue}{3} \end{matrix}$$

$$S_2 = \begin{bmatrix} \textcolor{brown}{3} & \textcolor{brown}{4} & \textcolor{brown}{5} \\ 2 & 20 & 40 \\ 1 & 25 & 25 \\ 3 & 13 & 39 \\ 1 & 10 & 10 \end{bmatrix} \begin{matrix} \textcolor{blue}{0} \\ \textcolor{blue}{1} \\ \textcolor{blue}{2} \\ \textcolor{blue}{3} \end{matrix}$$

$$S_3 = \begin{bmatrix} \textcolor{brown}{6} \\ 1 \end{bmatrix} \textcolor{blue}{3}$$

$$I_1 = \begin{bmatrix} 1 & 0 & 0 \\ 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} \begin{matrix} \textcolor{blue}{0} \rightarrow \textcolor{blue}{0} \\ \textcolor{blue}{0} \rightarrow \textcolor{blue}{1} \\ \textcolor{blue}{1} \rightarrow \textcolor{blue}{2} \\ \textcolor{blue}{2} \rightarrow \textcolor{blue}{3} \end{matrix}$$

$$I_2 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix} \begin{matrix} \textcolor{blue}{0} \rightarrow \textcolor{blue}{0} \\ \textcolor{blue}{1} \rightarrow \textcolor{blue}{1} \\ \textcolor{blue}{2} \rightarrow \textcolor{blue}{2} \\ \textcolor{blue}{3} \rightarrow \textcolor{blue}{3} \end{matrix}$$

$$I_3 = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 1 \end{bmatrix} \begin{matrix} \rightarrow \textcolor{blue}{0} \\ \rightarrow \textcolor{blue}{1} \\ \rightarrow \textcolor{blue}{2} \\ \textcolor{blue}{0} \rightarrow \textcolor{blue}{3} \end{matrix}$$

$$M_1 = \begin{bmatrix} 1. & 0. & 0. \\ 0. & 1. & 0. \\ 0. & 0. & 1. \\ 0. & 0. & 0. \\ 0. & 0. & 0. \\ 0. & 0. & 0. \\ 0. & 0. & 0. \end{bmatrix} \begin{matrix} \textcolor{brown}{0} \rightarrow \textcolor{brown}{0} \\ \textcolor{brown}{1} \rightarrow \textcolor{brown}{1} \\ \textcolor{brown}{2} \rightarrow \textcolor{brown}{2} \\ \rightarrow \textcolor{brown}{3} \\ \rightarrow \textcolor{brown}{4} \\ \rightarrow \textcolor{brown}{5} \\ \rightarrow \textcolor{brown}{6} \end{matrix}$$

$$M_1 = \begin{bmatrix} 0. & 0. & 0. \\ 0. & 0. & 0. \\ 0. & 0. & 0. \\ 1. & 0. & 0. \\ 0. & 1. & 0. \\ 0. & 0. & 1. \\ 0. & 0. & 0. \end{bmatrix} \begin{matrix} \rightarrow \textcolor{brown}{0} \\ \rightarrow \textcolor{brown}{1} \\ \rightarrow \textcolor{brown}{2} \\ \textcolor{brown}{0} \rightarrow \textcolor{brown}{3} \\ \textcolor{brown}{1} \rightarrow \textcolor{brown}{4} \\ \textcolor{brown}{2} \rightarrow \textcolor{brown}{5} \\ \rightarrow \textcolor{brown}{6} \end{matrix}$$

$$M_3 = \begin{bmatrix} 0. \\ 0. \\ 0. \\ 0. \\ 0. \\ 0. \\ 1. \end{bmatrix} \begin{matrix} \rightarrow \textcolor{brown}{0} \\ \rightarrow \textcolor{brown}{1} \\ \rightarrow \textcolor{brown}{2} \\ \rightarrow \textcolor{brown}{3} \\ \rightarrow \textcolor{brown}{4} \\ \rightarrow \textcolor{brown}{5} \\ \textcolor{brown}{0} \rightarrow \textcolor{brown}{6} \end{matrix}$$

$$T = \begin{bmatrix} \textcolor{brown}{0} & \textcolor{brown}{1} & \textcolor{brown}{2} & \textcolor{brown}{3} & \textcolor{brown}{4} & \textcolor{brown}{5} & \textcolor{brown}{6} \\ 1 & 11 & 2024 & 2 & 20 & 40 & 0 \\ 1 & 11 & 2024 & 1 & 25 & 25 & 0 \\ 2 & 12 & 2024 & 3 & 13 & 39 & 0 \\ 3 & 11 & 2024 & 1 & 10 & 10 & 1 \end{bmatrix} \begin{matrix} \textcolor{blue}{0} \\ \textcolor{blue}{1} \\ \textcolor{blue}{2} \\ \textcolor{blue}{3} \end{matrix}$$