$$g_1 = \begin{pmatrix} y_2 \\ y_3 \end{pmatrix}^{y_1}, \quad g_2 = \begin{pmatrix} y_3 \\ y_1 \end{pmatrix}^{y_2}, \quad g_3 = \begin{pmatrix} y_1 \\ y_2 \end{pmatrix}^{y_3}.$$