

$$\begin{array}{ccccccccc}
4x_1 & + & 3x_2 & + & 3x_3 & - & 2x_4 & = & \lambda \\
-x_1 & - & x_2 & - & x_3 & + & x_4 & = & 2 \\
-19x_1 & - & 19x_2 & - & 20x_3 & + & (11+\mu)x_4 & = & 6-2\lambda \\
4x_1 & + & 7x_2 & + & 8x_3 & + & x_4 & = & -2
\end{array}$$

$$\begin{array}{c}
3 \\
-20 \\
8
\end{array}
\left(\begin{array}{cccc|c}
4 & 3 & 3 & -2 & \lambda \\
-1 & -1 & -1 & 1 & 2 \\
-19 & -19 & -20 & 11+\mu & 6-2\lambda \\
4 & 7 & 8 & 1 & -2
\end{array} \right)$$

$$\rightarrow \begin{array}{c} -1 \\ 1 \end{array} \left(\begin{array}{cccc|c}
1 & 0 & 0 & 1 & \lambda+6 \\
-1 & -1 & -1 & 1 & 2 \\
1 & 1 & 0 & \mu-9 & -34-2\lambda \\
-4 & -1 & 0 & 9 & 14
\end{array} \right)$$

$$\rightarrow \begin{array}{c} -3 \\ 3 \\ 4 \end{array} \left(\begin{array}{cccc|c}
1 & 0 & 0 & 1 & \lambda+6 \\
3 & 0 & -1 & -8 & -12 \\
-3 & 0 & 0 & \mu & -20-2\lambda \\
-4 & -1 & 0 & 9 & 14
\end{array} \right)$$

$$\rightarrow \left(\begin{array}{cccc|c}
1 & 0 & 0 & 1 & \lambda+6 \\
0 & 0 & -1 & -11 & -3\lambda-30 \\
0 & 0 & 0 & \mu+3 & 2\lambda \\
0 & -1 & 0 & 13 & 4\lambda+38
\end{array} \right) -1$$

$$\rightarrow \left(\begin{array}{cccc|c}
1 & 0 & 0 & 1 & \lambda+6 \\
0 & 0 & 1 & 11 & 3\lambda+30 \\
0 & 0 & 0 & \mu+3 & 2\lambda \\
0 & -1 & 0 & 13 & 4\lambda+38
\end{array} \right)$$