7.2

$$U_x = \begin{bmatrix} 4 & 1 & 0 & 0 \\ 0 & 15/4 & 1 & 0 \\ 0 & 0 & 56/15 & 1 \\ 0 & 0 & 0 & 209/56 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \end{bmatrix} \cong \begin{bmatrix} 2 \\ -3.5 \\ 3.933 \\ -3.053 \end{bmatrix}$$

$4x_1 + x_2 = 2$

$\frac{15}{4} x_2 + x_3 = -3.5$

$\frac{56}{15} x_3 + x_4 \cong 3.933$

$\frac{209}{56} x_4 \cong -3.053$

$x_4 \cong 6.785$

$x_3 \cong \dfrac{3.933 - 6.785}{56/15} \cong -0.7634$

$x_2 \cong \dfrac{-3.5 + 0.7639}{15/4} \cong -0.7296$

$x_1 \cong \dfrac{2 + 0.7296}{4} = 0.6824$

$$X \cong \begin{bmatrix} 0.6824 \\ -0.7296 \\ -0.7639 \\ 6.785 \end{bmatrix}$$