$$a_{11}x_1 + a_{12}x_2 + a_{13}x_3 = b_1 \qquad E(1)'$$
$$a_{22}^{(2)}x_2 + a_{23}^{(2)}x_3 = b_2^{(2)} \qquad E(2)'$$
$$a_{32}^{(2)}x_2 + a_{33}^{(2)}x_3 = b_3^{(2)} \qquad E(3)'$$

gdzie

$$a_{ij}^{(2)} = a_{ij} - m_{i1}a_{1j}, \qquad i,j = 2,3$$
$$b_i^{(2)} = b_i - m_{i1}b_1, \qquad i = 2,3$$

$a_{22} \neq 0$, $m_{32} = \frac{a_{32}^{(2)}}{a_{22}^{(2)}}$, $E(3)'' = E(3)' - m_{32}E(2)'$

$$a_{11}x_1 + a_{12}x_2 + a_{13}x_3 = b_1 \qquad E(1)''$$
$$a_{22}^{(2)}x_2 + a_{23}^{(2)}x_3 = b_2^{(2)} \qquad E(2)''$$
$$a_{33}^{(3)}x_3 = b_3^{(3)} \qquad E(3)''$$

gdzie

$$a_{33}^{(3)} = a_{33}^{(2)} - m_{32}a_{23}^{(2)}, \qquad b_3^{(3)} = b_3^{(2)} - m_{32}b_2^{(2)}$$

Podstawianie wstecz

$$x_3 = \frac{b_3^{(3)}}{a_{33}^{(3)}}$$

$$x_2 = \frac{(b_2^{(2)} - a_{23}^{(2)}x_3)}{a_{22}^{(2)}}$$

$$x_1 = \frac{(b_1 - a_{12}x_2 - a_{13}x_3)}{a_{11}}$$