Przykład

$$4x_1 + 3x_2 + 2x_3 + x_4 = 1$$
$$3x_1 + 4x_2 + 3x_3 + 2x_4 = 1$$
$$2x_1 + 3x_2 + 4x_3 + 3x_4 = -1$$
$$x_1 + 2x_2 + 3x_3 + 4x_4 = -1$$

$$\left[\begin{array}{cccc|c} 4 & 3 & 2 & 1 & 1 \\ 3 & 4 & 3 & 2 & 1 \\ 2 & 3 & 4 & 3 & -1 \\ 1 & 2 & 3 & 4 & -1 \end{array}\right]$$

$$m_{21} = \frac{3}{4}$$
$$\rightarrow$$
$$m_{31} = \frac{1}{2}$$
$$m_{41} = \frac{1}{4}$$

$$\left[\begin{array}{cccc|c} 4 & 3 & 2 & 1 & 1 \\ 0 & \frac{7}{4} & \frac{3}{2} & \frac{5}{4} & \frac{1}{4} \\ 0 & \frac{3}{2} & 3 & \frac{5}{2} & -\frac{3}{2} \\ 0 & \frac{5}{4} & \frac{5}{2} & \frac{15}{4} & -\frac{5}{4} \end{array}\right]$$

$$m_{32} = \frac{6}{7} \downarrow m_{42} = \frac{5}{7}$$

$$\left[\begin{array}{cccc|c} 4 & 3 & 2 & 1 & 1 \\ 0 & \frac{7}{4} & \frac{3}{2} & \frac{5}{4} & \frac{1}{4} \\ 0 & 0 & \frac{12}{7} & \frac{10}{7} & \frac{-12}{7} \\ 0 & 0 & 0 & \frac{5}{3} & 0 \end{array}\right]$$

$$\xleftarrow{\quad} \quad m_{43} = \frac{5}{6}$$

$$\left[\begin{array}{cccc|c} 4 & 3 & 2 & 1 & 1 \\ & \frac{7}{4} & \frac{3}{2} & \frac{5}{4} & \frac{1}{4} \\ 0 & 0 & \frac{12}{7} & \frac{10}{7} & \frac{-12}{7} \\ 0 & 0 & \frac{10}{7} & \frac{20}{7} & \frac{-10}{7} \end{array}\right]$$

$$\frac{5}{3}x_4 = 0 \Rightarrow x_4 = 0$$

$$\frac{12}{7}x_3 + \frac{10}{7}(0) = -\frac{12}{7} \Rightarrow x_3 = -1$$

$$\frac{7}{4}x_2 + \frac{3}{2}(-1) + \frac{5}{4}(0) = \frac{1}{4} \Rightarrow \frac{7}{4}x_2 = \frac{1}{4} + \frac{3}{2} \Rightarrow x_2 = 1$$

$$4x_1 + 3(1) + 2(-1) + 1(0) = 1 \Rightarrow 4x_1 = 0 \Rightarrow x_1 = 0$$