Przykład

$$A = \begin{bmatrix} 1 & 1 & -1 \\ 1 & 2 & -2 \\ -2 & 1 & 1 \end{bmatrix}$$

$$u_{11} = a_{11} = 1 \qquad u_{12} = a_{12} = 1 \qquad u_{13} = a_{13} = -1$$

$$m_{21} = \frac{a_{21}}{u_{11}} = 1 \qquad m_{31} = \frac{a_{31}}{u_{11}} = -2$$

$$u_{22} = a_{22} - m_{21}u_{12} = 2 - 1 \cdot 1 = 1$$
$$u_{23} = a_{23} - m_{21}u_{13} = -2 - 1 \cdot (-1) = -1$$
$$m_{32} = (a_{32} - m_{31}u_{12})/u_{22} = (1 - (-2) \cdot 1)/1 = 3$$
$$u_{33} = a_{33} - m_{31}u_{13} - m_{32}u_{23} = 1 - (-2)(-1) - 3(-1) = 2$$

$$A = \begin{bmatrix} 1 & 0 & 0 \\ 1 & 1 & 0 \\ -2 & 3 & 1 \end{bmatrix} \cdot \begin{bmatrix} 1 & 1 & -1 \\ 0 & 1 & -1 \\ 0 & 0 & 2 \end{bmatrix} \quad \blacksquare$$