

$$A = \begin{pmatrix} 2 & 1 & 1 \\ 1 & 2 & 1 \\ \textcircled{1} & 1 & 3 \end{pmatrix} \rightarrow B = \begin{pmatrix} * & * & 0 \\ * & * & * \\ 0 & * & * \end{pmatrix} \quad , A \sim B$$

$$a_{31} \rightarrow 0$$

$$l, k-1$$

$$, k=2, l=3$$

→ vrsta u kojoj anuliramo
↳ vrsta kojom anuliramo

$$a_{k,k-1} = 0 ?$$

$$a_{21} = 1 \neq 0$$

$$\alpha = \frac{|a_{21}|}{\sqrt{|a_{21}|^2 + |a_{31}|^2}} = \frac{1}{\sqrt{1+1}} = \frac{1}{\sqrt{2}}$$

$$\beta = \frac{a_{31}}{a_{21}} \cdot \alpha = \frac{1}{1} \cdot \frac{1}{\sqrt{2}} = \frac{1}{\sqrt{2}}$$

$$U_{23} = \begin{pmatrix} 1 & 0 & 0 \\ 0 & 1/\sqrt{2} & -1/\sqrt{2} \\ 0 & 1/\sqrt{2} & 1/\sqrt{2} \end{pmatrix}$$

$$[k, k] \rightarrow \alpha$$

$$[l, l] \rightarrow \alpha$$

$$[k, l] \rightarrow -\beta$$

$$[l, k] \rightarrow \beta$$

$$B = U_{23}^T \cdot A \cdot U_{23} = \begin{pmatrix} 2 & \sqrt{2} & 0 \\ \sqrt{2} & 7/2 & 1/2 \\ 0 & 1/2 & 3/2 \end{pmatrix}$$

$$A \sim B$$