

$$A = \begin{bmatrix} A' & A'' \end{bmatrix} = \underbrace{\begin{bmatrix} | & | \\ A_1 & A_2 \\ | & | \end{bmatrix}}_{\substack{A' \\ \text{Linear} \\ \text{independent} \\ \text{columns}}} \underbrace{\begin{bmatrix} | & | & | \\ A_3 & A_4 & A_5 \\ | & | & | \end{bmatrix}}_{\substack{A'' \\ \text{Linear} \\ \text{dependent} \\ \text{columns}}}$$