

$$A = \begin{bmatrix} 2 & -1 & & & & & \\ -1 & 2 & -1 & & & & \\ & -1 & 2 & -1 & & & \\ & & -1 & 2 & -1 & & \\ & & & -1 & 2 & -1 & \\ & 0 & & & -1 & 2 & -1 \\ & & & & & -1 & 2 \end{bmatrix} \quad \begin{array}{l} I_1 = \{1, 2\} \\ \\ \\ I_2 = \{3, 4\} \\ \\ \\ I_3 = \{5, 6, 7\} \end{array}$$