



$$G = \{\emptyset, \{1\}, \{2\}, \{3\}, \{4\}, \{5\}, \{1, 2\}, \{1, 3\}, \{1, 4\}, \{2, 3\}, \{2, 4\}, \{2, 5\}, \{3, 4\}, \{4, 5\}, \{1, 2, 3\}, \{1, 2, 4\}, \{1, 3, 4\}, \{2, 3, 4\}, \{2, 4, 5\}\}$$

$$\partial_2^G = \begin{pmatrix} 1 & 1 & 0 & 0 & 0 \\ -1 & 0 & 1 & 0 & 0 \\ 0 & -1 & -1 & 0 & 0 \\ 1 & 0 & 0 & 1 & 0 \\ 0 & 1 & 0 & -1 & 1 \\ 0 & 0 & 0 & 0 & -1 \\ 0 & 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{pmatrix} \begin{matrix} \leftarrow \{1, 2\} \\ \leftarrow \{1, 3\} \\ \leftarrow \{1, 4\} \\ \leftarrow \{2, 3\} \\ \leftarrow \{2, 4\} \\ \leftarrow \{2, 5\} \\ \leftarrow \{3, 4\} \\ \leftarrow \{4, 5\} \end{matrix}$$

$\uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow$   
 $\{1, 2, 3\} \quad \{1, 2, 4\} \quad \{1, 3, 4\} \quad \{2, 3, 4\} \quad \{2, 4, 5\}$