

- $\mathbb{N} = \{1, 2, \dots\}$. $\mathbb{N}_0 = \{0\} \cup \mathbb{N}$.
- $[k]$: The set $\{1, \dots, k\} \subseteq \mathbb{N}$. $[0] = \emptyset$.
- $G[U]$: Induced subgraph.
- $|\sigma|, |F|$: The type size and flag size (number of vertices) respectively.
- \cong : Isomorphism.
- $\Delta(G)$: Maximum degree of G .
- $a := b$: Define a to be equal to b .
- $\text{im } f$: The image of a function f .