

3/20(4) 7/67+ Chap. Regular Languages

Class of R.L's (types)

finite lang.

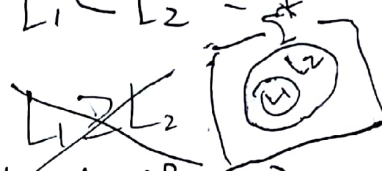
closed under $\cup, \cap, *$

$$L_1 = \{a^n b^n \mid n \geq 0\}$$

$$L_2 = \{a^* b^*\}$$

Context free lang.
 → not regular
 - pumping lemma
 - regular

$$L_1 \subset L_2$$



Chomsky's lang. Hierarchy



Three descriptions for R.L. infinite CFL

- ① regular expressions
- ② finite automata → pushdown automata (Parser)
- ③ regular grammars → Context-free grammar

3.1 Regular Expression Language description.

Shostak's mini-language

- if $x \geq y \rightarrow m := x$
- if $x \leq y \rightarrow m := y$
- fi