Parsing Theory.

Chap 1 Elements of Language Theory

Let A and B be sets.

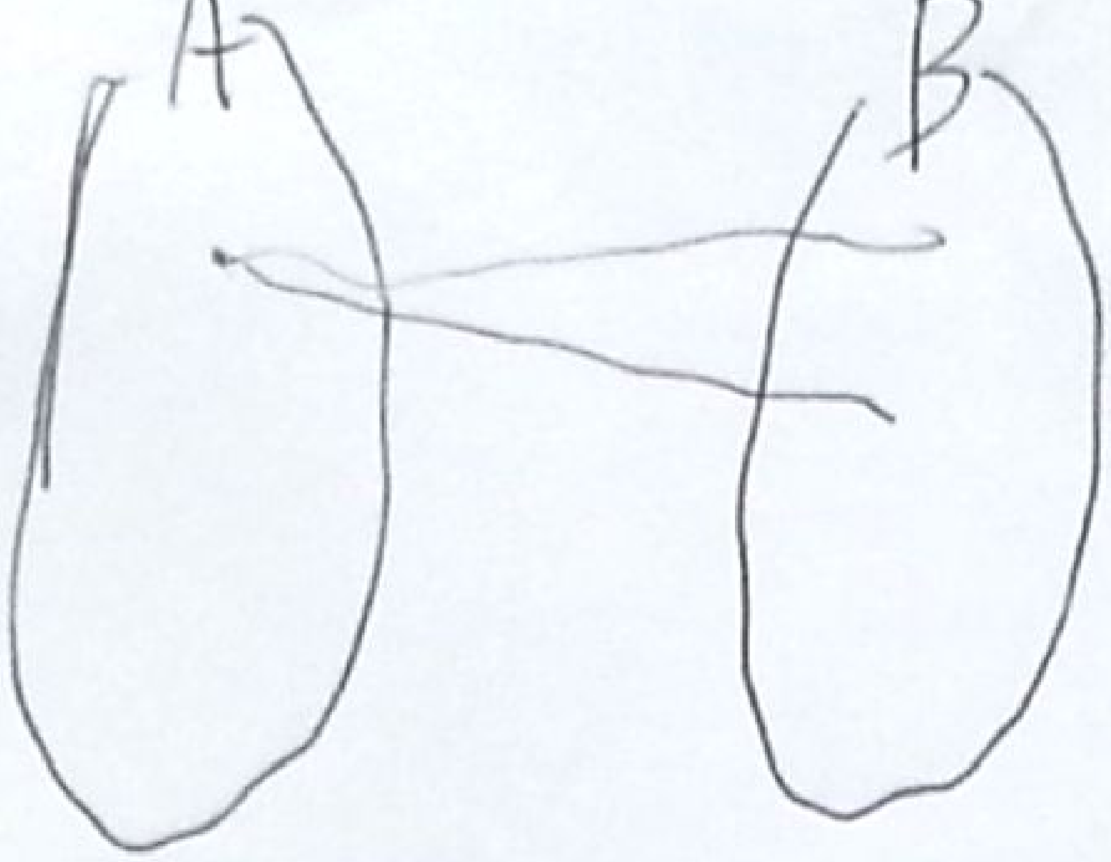
$R \subseteq A \times B = \{(a, b) \mid a \in A, b \in B\}$

aRb

$f : A \to B$

$\forall a \in A, \exists_1 b \in B$ s.t. $(a, b) \in f$.

total, uniqueness



$|R| = 2^{|A| \times |B|}$

C 5. C++ 6
J 9.

※ Prog Lang
type = set.
int i
ftn $A \to B$

Binary relation.

$f(a) = b$ vs $R(a) = \{b_1, b_2, \ldots, b_k\}$ $\exists k \geq 0$

R is associative → (2ary → nary)

$R_1 \circ (R_2 \circ R_3) = (R_1 \circ R_2) \circ R_3$

$\circ(R_1 R_2 R_3)$

$(a+b)+c = a+(b+c)$

$+\{a, b, c\}$ $\quad \sum_{a.b.c} \{a, b, c\}$ $\quad \sum_{i=1}^{100} i$

※ 번역의 탄생
이희재

영어: 명사, (형용사)
한국어: 동사 (부사)

Binary-relation ⟶ n-ary relation.

$A = B \iff A \subseteq B \wedge B \subseteq A$

$A \cong_f B \iff f : A \to B, \; f^{-1} : B \to A \iff A \underset{f}{\leftrightarrow} B$

$\{1, 2, \ldots\} \underset{\neq}{\subset} \{0, 1, 2, \ldots\}$

$\{1, 2, \ldots\} \longleftrightarrow \{0, 1, 2, \ldots\}$

$\therefore |\{1, 2, 3, \ldots\}| = |\{0, 1, 2, \ldots\}| = \aleph_0$

equivalence rel. (ref, sym. tran.)

$\iff$ partition ... set of equi. classes.

Relation $O(n^2)$

Equi. Rel $\iff$ partition $O(n)$