

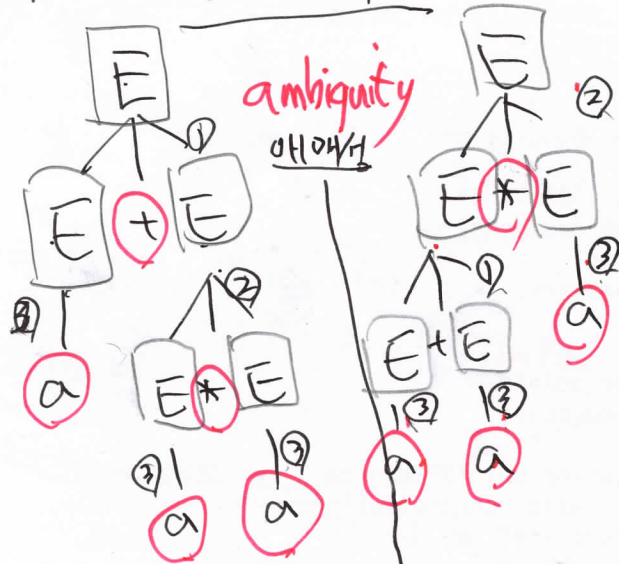
# CFG & parse tree

## 5.2 Parse tree

$$E \rightarrow E + E \mid E * E \mid a \mid (E)$$

basis

parse tree  $a + a * a \in \Sigma^*$



Yield, inorder

① ③ ② ③ ③  
left parse

② ③ ① ③ ③

right parse

의 거꾸로 (in reversed order)

9. 어떤 순서가 나오는 비순서 (order)

① 가장 왼쪽 (leftmost)

② " 오른쪽 (rightmost)

③ ③ ① ③ ②

Recursion은 recursion의 형식적인 deduction

이론 - 논리 (Reason)  
실용 - 경험 (Experience)

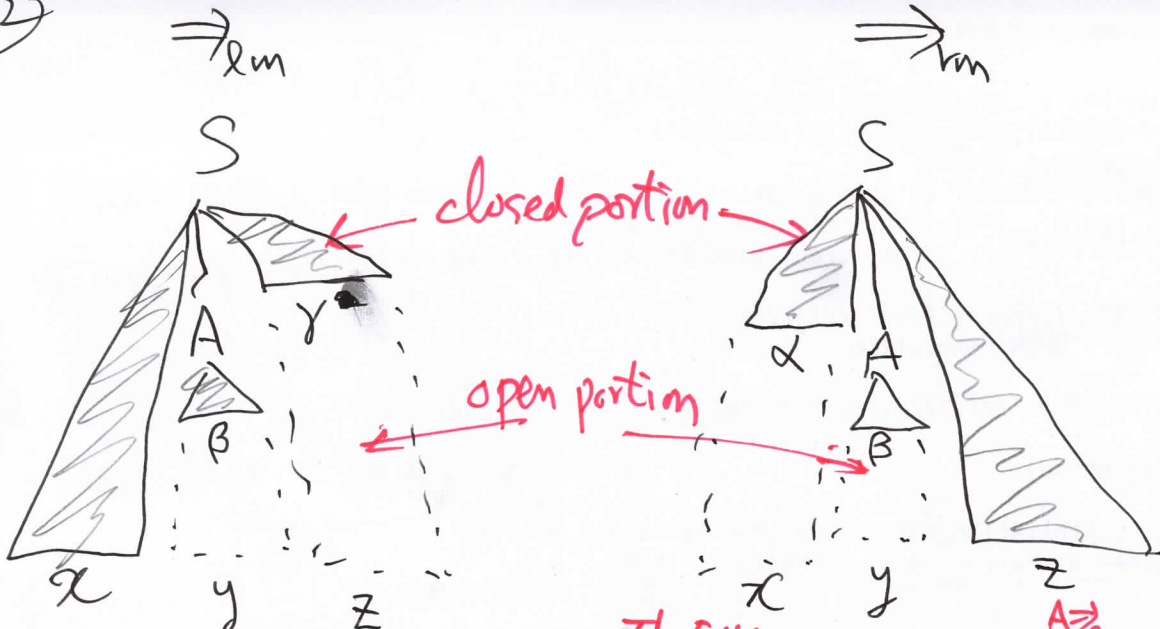
CFG: ① 언어를 정의 (정의)  
② 구조를 정의 (구분)  
syntactic structure (parse tree)

Infix binary operator

- ① precedence
- ② associativity

3

$R \subseteq A \times B$   
 $(a,b) \in R, a \in A, b \in B$



$(1) A \xrightarrow{*} x$   $\Leftarrow$   $(2) A \xrightarrow{lm} x$   $\Leftarrow$   $(4)$   
 $\equiv$   $(3) A \xrightarrow{rm} x$   $\Leftarrow$  **Thm 5.16**  
**Thm 5.14**  
**Thm 5.12**

