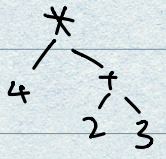
Lecture #7. Grammars and Parsing.

Tree representation:

4 * (2 + 3)



Grammars and Parse Tree.

- shows nested subexpressions
- specific to grammar
- composed of grammar rules

Grammar:

$E \rightarrow n$

$E \rightarrow E + E$

$E \rightarrow E * E$

$E \rightarrow (E)$

⇒
- Non terminals
- Start Nonterminals : E
- terminals : + * ( ) n
- Productions : 4

Syntax-checking.

test if a given $s \in L(G)$

- scan(c): if nxt char is c, consume c
  else abort.
- Oracle(): predict which rule to use.

⇒ Recursive-decendent parser