









\* Symbol

$x|y$  means  $x$  or  $y$  或  
 $xy$  or  $x.y$  means  $x$  follow by  $y$  紧接着  
 $\langle word \rangle$  means any instance of word that the definition defines

$\langle number \rangle = \langle digit \rangle \langle number \rangle | \langle digit \rangle$

$\langle digit \rangle = 0|1|2|3|4|5|6|7|8|9$

$\langle addition \rangle = \langle digit \rangle + \langle addition \rangle | \langle digit \rangle$

$\langle digit \rangle = 0|1|2|3|4|5|6|7|8|9$

$\langle identifier \rangle = \langle letter \rangle | \langle identifier \rangle \langle letter \rangle | \langle identifier \rangle \langle digit \rangle$

$\langle letter \rangle = a|b|...|z|A|B|...|Z|$

$\langle digit \rangle = 0|1|...|9|$

$\langle identifier \rangle = \langle letter \rangle \langle suffix \rangle$

$\langle suffix \rangle = \langle suffix \rangle \langle letter \rangle | \langle suffix \rangle \langle digit \rangle$

\* Algebraic Expressions

Infix expression 中序运算式 ex:  $a+b$   $b \neq c$

An operator appears between its operands 运算符

Prefix expression 前序运算式 ex:  $+ab$   $abc$

An operator appears before its operands

Postfix expression 后序运算式 ex:  $ab+$   $bca$

An operator appears after its operands

重要性:

一个前序式后面再跟上非空字串一定不是前序式

ex:  $+ab/cd$

\* 八皇后问题

\* A Search Problem (搜索两两间路径)

