

---

## 编译系统原理第二章预习作业

计科一班 2013536 汤清云

### 1. CFG 设计

While 语句产生式:

$statement \rightarrow \mathbf{while} ( expression ) \quad statement$

for 语句产生式:

$statement \rightarrow \mathbf{for} ( expression_1 ; expression_2 ; expression_3 ) \quad statement$

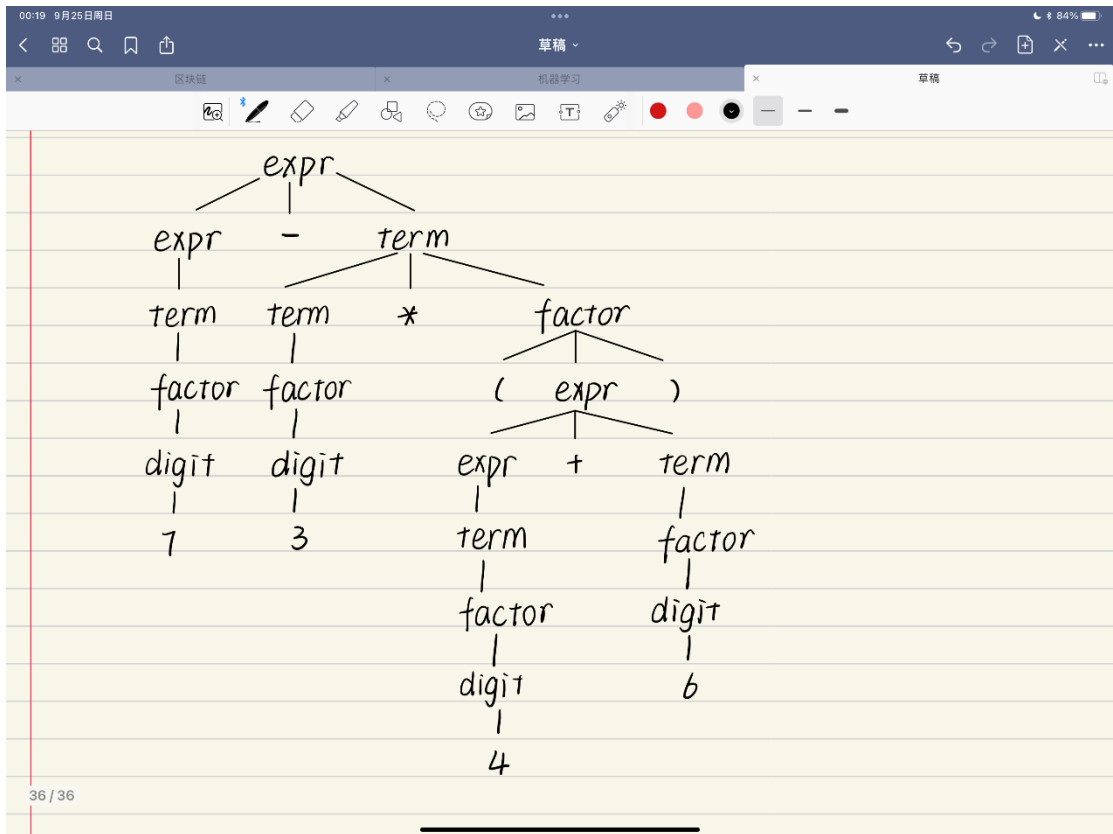
变量声明语句产生式:

$identify \rightarrow id1 , id2 , id3 \dots\dots$

$statement \rightarrow \mathbf{int} \mid \mathbf{float} \mid \mathbf{double} \mid \mathbf{char} + identify$

### 2. 推导、语法树

$expr \rightarrow expr-term$   
     $\rightarrow term-term*factor$   
     $\rightarrow factor-factor*(expr)$   
     $\rightarrow digit-digit*(expr+term)$   
     $\rightarrow digit-digit*(term+factor)$   
     $\rightarrow digit-digit*(factor+digit)$   
     $\rightarrow digit-digit*(digit+digit)$   
     $\rightarrow 7-digit*(digit+digit)$   
     $\rightarrow 7-3*(digit+digit)$   
     $\rightarrow 7-3*(4+digit)$   
     $\rightarrow 7-3*(4+6)$



### 3. 语法制导定义

