

编译原理作业 6

作者: 吴润泽

学号: 181860109

2021 年 4 月 8 日

5.4.3

(1) 提取公因子, 文法变为

$$\begin{aligned} B &\rightarrow B_1 A \{B.val = 2 \times B_1.val + A.val\} \\ &\quad | 1 \{B.val = 1\} \\ A &\rightarrow 0 \{A.val = 0\} \\ &\quad | 1 \{A.val = 1\} \end{aligned} \tag{1}$$

(2) 去除左递归, 文法变为

$$\begin{aligned} B &\rightarrow 1 \{C.inh = 1\} C \{B.val = C.val\} \\ C &\rightarrow A \{C_1.inh = 2 \times C.inh + A.val\} C_1 \{C.val = C_1.val\} \\ &\quad | \epsilon \{C.val = C.inh\} \\ A &\rightarrow 0 \{A.val = 0\} \\ &\quad | 1 \{A.val = 1\} \end{aligned} \tag{2}$$