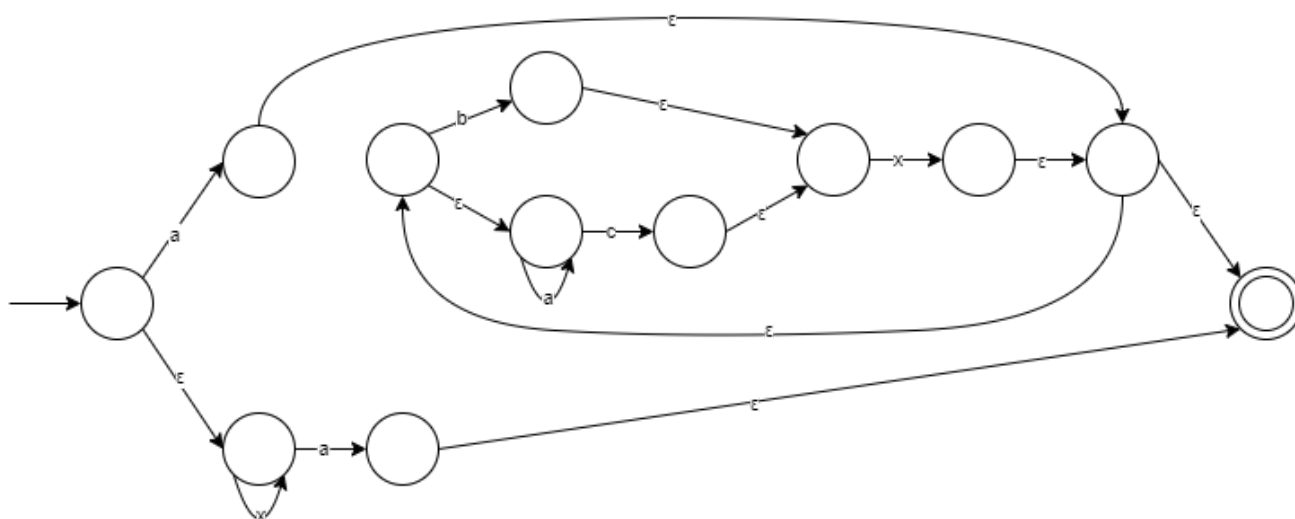
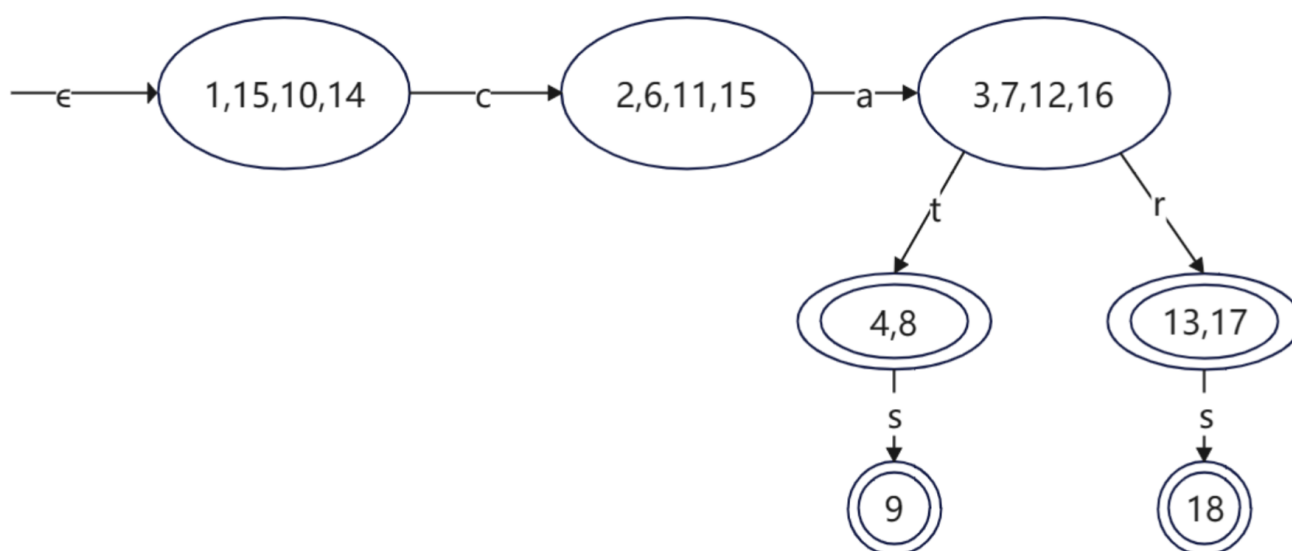


2.4 (b)



2.5 (c)



3.3

验证语法非歧义: [CFG Developer \(stanford.edu\)](http://CFGDeveloper.stanford.edu)

(b)

- 1 $S \rightarrow aSb \mid E$
- 2 $E \rightarrow aE \mid a$

(c)

```
1 | S → ε | SA
2 | A → (S) | [B]
3 | B → S | S(B
```

3.4

二义性: $S \rightarrow S;S$ 、 $E \rightarrow E+E$ 左递归: $L \rightarrow L,E$

- Q

```
1 | S → S;S | id:=E | print(L)
2 | E → id | num | E+E | (S,E)
3 | L → E | L,E
```

- A

```
1 | S → AB, B → ;AB | ε, A → id:=E | print(L)
2 | E → CD, D → +CD | ε, C → id | num | (S,E)
3 | L → EF, F → ,LF | ε
```

3.12 (a)(b)

文法:

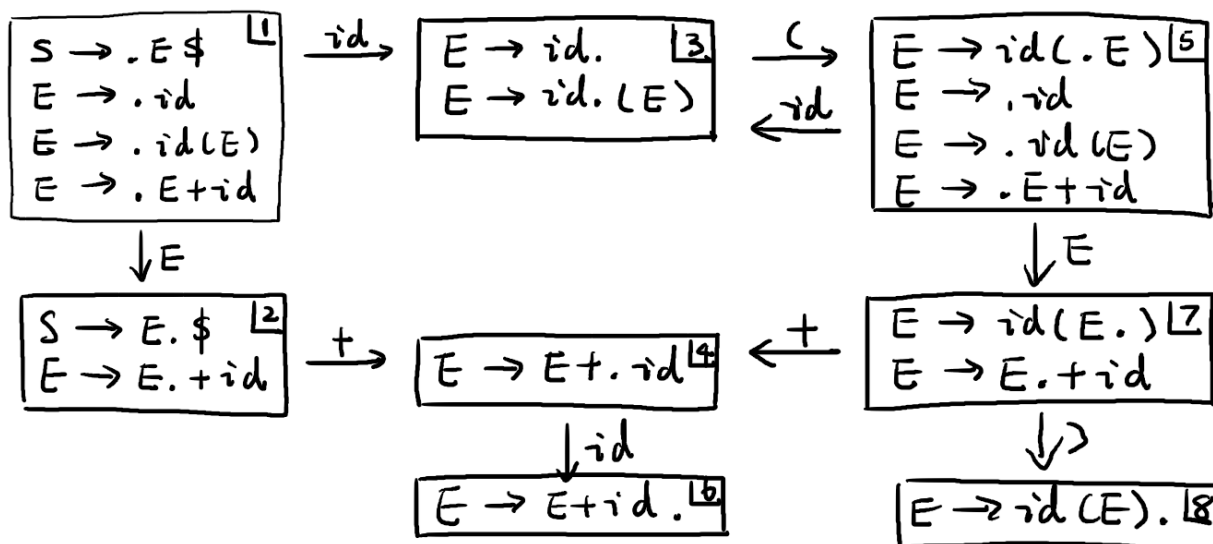
0 $S \rightarrow E \$$

1 $E \rightarrow id$

2 $E \rightarrow id(E)$

3 $E \rightarrow E + id$

a. LR(0) DFA:



b. 不是 LR(0) 文法, 理由如下:

LR(0) 分析表:

	id	+	()	\$	E
1	s3					g ²
2		s4			a	
3	r1	r1	s5	r1	r1	
4	s6					
5	s3					
6	r3	r3	r3	r3	r3	g ⁷
7		s4		s8		
8	r2	r2	r2	r2	r2	

在位置 (3, () 中, 既有 s5 又有 r1, 产生冲突, 因此不是 LR(0) 文法.