#### Example

```
XL grammar
T = \{ ID, PLUS, TIMES, \}
      LP, RP);
N = {exp, term, fac};
S = \exp;
P:
1/ exp -> exp PLUS term
       l term
3/ term -> term TIMES fac
        | fac
5/ fac -> ID
       | LP exp RP
```

```
最左归约

ID PLUS ID TIMES ID ID PLUS ID TIMES ID

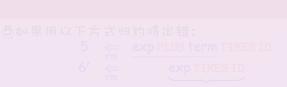
1 ← fac PLUS ID TIMES ID ID PLUS ID TIMES ID

2 ← term PLUS ID TIMES ID ID PLUS ID TIMES ID

3 ← exp PLUS ID TIMES ID ID PLUS ID TIMES ID

4 ← exp PLUS fac TIMES ID ID PLUS ID ITMES ID

5 ← exp PLUS term TIMES ID ID PLUS ID TIMES ID
```



#### Example

#### XL grammar

| LP exp RP

#### 最左归约

ь	MA .T .1-	時 /エ 1- 5/1				
1		ID PLUS ID TIMES ID	ID PLUS ID TIMES ID			
ı	1 <del>←</del>					
ı						
ı						
ı						
ı						
ı						
ı						
ı						

问题

5/ fac -> ID

在第5如果用以下方式归约将出错:

 $6' \stackrel{\mathsf{rm}}{\Leftarrow} \underbrace{\mathsf{exp}\,\mathsf{TIMES}\,\mathsf{ID}}$ 

ot match any RHS of proc

#### Example

## XL grammar $T = \{ ID, PLUS, TIMES, \}$ LP, RP); N = {exp, term, fac}; S = exp;P: 1/ exp -> exp PLUS term | term 3/ term -> term TIMES fac | fac 5/ fac -> ID 6/ | LP exp RP

	最左归约				
ı			ID PLUS ID TIMES ID	ID PLUS ID TIMES ID	
ı	1	← rm	fac PLUS ID TIMES ID	ID PLUS ID TIMES ID	
ı					
ı					
ı					
ı					
ı					
ı					
ı					

## Example

#### XL grammar $T = \{ ID, PLUS, TIMES, \}$ LP, RP); N = {exp, term, fac}; S = exp;P: 1/ exp -> exp PLUS term l term 3/ term -> term TIMES fac | fac 5/ fac -> ID | LP exp RP

ī	最;	左归	约	
			ID PLUS ID TIMES ID	ID PLUS ID TIMES ID
	1	← rm	fac PLUS ID TIMES ID	ID PLUS ID TIMES ID
	2		term PLUS ID TIMES ID	ID PLUS ID TIMES ID

#### Example

#### XL grammar T = { ID, PLUS, TIMES, LP, RP); N = {exp, term, fac}; S = exp;P: 1/ exp -> exp PLUS term l term 3/ term -> term TIMES fac 4/ | fac 5/ fac -> ID 6/ | LP exp RP

最;	最左归约		
		ID PLUS ID TIMES ID	ID PLUS ID TIMES ID
1	← rm	fac PLUS ID TIMES ID	ID PLUS ID TIMES ID
2	← rm	term PLUS ID TIMES ID	ID PLUS ID TIMES ID
3	← rm	exp PLUS <u>ID</u> TIMES ID	ID PLUS ID TIMES ID

## Example

## XL grammar $T = \{ ID, PLUS, TIMES, \}$ LP, RP); N = {exp, term, fac}; S = exp;P: 1/ exp -> exp PLUS term l term 3/ term -> term TIMES fac | fac 5/ fac -> ID | LP exp RP

最	最左归约			
		ID PLUS ID TIMES ID	ID PLUS ID TIMES ID	
1	← rm	fac PLUS ID TIMES ID	ID PLUS ID TIMES ID	
2		term PLUS ID TIMES ID	ID PLUS ID TIMES ID	
3	← rm	exp PLUS <u>ID</u> TIMES ID	ID PLUS ID TIMES ID	
4	← rm	exp PLUS fac TIMES ID	ID PLUS ID ITMES ID	

#### Example

#### 

| LP exp RP

```
B左归约

ID PLUS ID TIMES ID ID PLUS ID TIMES ID

1 ← fac PLUS ID TIMES ID ID PLUS ID TIMES ID

2 ← term PLUS ID TIMES ID ID PLUS ID TIMES ID

3 ← exp PLUS ID TIMES ID ID PLUS ID TIMES ID

4 ← exp PLUS fac TIMES ID ID PLUS ID ITMES ID

5 ← exp PLUS term TIMES ID ID PLUS ID TIMES ID

6 ← exp PLUS term TIMES ID

7 ← exp PLUS term TIMES fac ID PLUS ID TIMES ID

7 ← exp PLUS term TIMES fac ID PLUS ID TIMES ID

10 PLUS ID TIMES ID
```

)在第5分果用以下方式归约将出错:

' ← exp TIMES ID

#### Example

#### 

| LP exp RP

# □D PLUS ID TIMES ID ID PLUS ID TIMES ID 1 ← fac PLUS ID TIMES ID ID PLUS ID TIMES ID 2 ← term PLUS ID TIMES ID ID PLUS ID TIMES ID 3 ← exp PLUS ID TIMES ID ID PLUS ID TIMES ID 4 ← exp PLUS fac TIMES ID ID PLUS ID ITMES ID 5 ← exp PLUS term TIMES ID ID PLUS ID TIMES ID

问题

5 \(\phi\) exp PLUS term TIMES ID

 $6 \Leftarrow \exp PLUS \underbrace{term TIMES fac}$ 

LW SYLLINGS ID

ID PLUS ID TIMES ID

## Example

1/ exp -> exp PLUS term 2 | term

3/ term -> term TIMES fac 4/ | fac

#### 最左归约

最石	最左归约					
		ID PLUS ID TIMES ID	ID PLUS ID TIMES ID			
1	⇐ rm	fac PLUS ID TIMES ID	ID PLUS ID TIMES ID			
2 <	⇐ rm	term PLUS ID TIMES ID	ID PLUS ID TIMES ID			
	⇐ rm	exp PLUS <u>ID</u> TIMES ID	ID PLUS ID TIMES ID			
	⇐ rm	exp PLUS <u>fac</u> TIMES ID	ID PLUS ID <b>ITMES ID</b>			
	⇐ rm	exp PLUS term TIMES <u>ID</u>	ID PLUS ID TIMES <mark>ID</mark>			
	⇐ rm	exp PLUS term TIMES fac	ID PLUS ID TIMES ID			
	← rm	exp PLUS term	ID PLUS ID TIMES ID			
8 <						

#### 问题

● 在第5如果用以下方式归约将出错:

5 \( \infty \text{exp PLUS term TIMES II} \)
6' \( \infty \text{exp TIMES ID} \)

Not match any RHS of productions!

## Example

| LP exp RP

## 最左归约

		ID PLUS ID TIMES ID	ID PLUS ID TIMES ID	
1	← rm	fac PLUS ID TIMES ID	ID PLUS ID TIMES ID	
2	← rm	term PLUS ID TIMES ID	ID PLUS ID TIMES ID	
3	← rm	exp PLUS <u>ID</u> TIMES ID	ID PLUS ID TIMES ID	
4	← rm	exp PLUS fac TIMES ID	ID PLUS ID ITMES ID	
5	← rm	exp PLUS term TIMES <u>ID</u>	ID PLUS ID TIMES ID	
6	← rm	exp PLUS term TIMES fac	ID PLUS ID TIMES ID	
7	← rm	exp PLUS term	ID PLUS ID TIMES ID	
8	← rm	exp	ID PLUS ID TIMES ID	

## 问题

5/ fac -> ID

● 在第5如果用以下方式归约将出错:

5 \(\infty\) \(\exp\) PLUS term TIMES II
6' \(\infty\) \(\exp\) TIMES ID

Not match any RHS of productions

#### Example

#### XL grammar

3/ term -> term TIMES fac 4/ | fac

#### 最左归约

		ID PLUS ID TIMES ID	ID PLUS ID TIMES ID
1	← rm	fac PLUS ID TIMES ID	ID PLUS ID TIMES ID
2	. ←	term PLUS ID TIMES ID	ID PLUS ID TIMES ID
3	₩ rm	exp PLUS <u>ID</u> TIMES ID	ID PLUS ID TIMES ID
4	⊢ ←	exp PLUS <u>fac</u> TIMES ID	ID PLUS ID ITMES ID
5	i ←	exp PLUS term TIMES <u>ID</u>	ID PLUS ID TIMES ID
6	v ←	exp PLUS term TIMES fac	ID PLUS ID TIMES ID
7	√ rm	exp PLUS term	ID PLUS ID TIMES ID
8		exp	ID PLUS ID TIMES ID

#### 问题

● 在第⑤如果用以下方式归约将出错:

5 \( \infty \text{exp PLUS term TIMES ID} \)
6' \( \infty \text{exp TIMES ID} \)

Not match any RHS of productions!

最左归约: ᢤ ID PLUS ID TIMES ID

ID

PLUS

TD

IMES

ID)

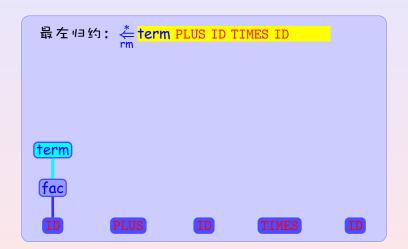




最左归约: <del>\* fac PLUS ID TIMES ID</del> fac















《四》《圖》《意》《意》。

