

Grammar:

$S' \rightarrow S$

$S \rightarrow L = R \mid R$

$L \rightarrow * R \mid id$

$R \rightarrow L$

Output:

Productions are:

$S' \rightarrow S \mid$

$S \rightarrow L = R \mid R \mid$

$L \rightarrow * R \mid id \mid$

$R \rightarrow L \mid$

State 0

$S' \rightarrow .S, \$ \mid$

$S \rightarrow .L = R, \$ \mid$

$S \rightarrow .R, \$ \mid$

$L \rightarrow .*R, = \mid \$ \mid$

$L \rightarrow .id, = \mid \$ \mid$

$R \rightarrow .L, \$ \mid$

Transitions for state 0:

To State 1 on encountering S

To State 2 on encountering L

To State 3 on encountering R

To State 4 on encountering *

To State 5 on encountering id

State 1

$S' \rightarrow S., \$ \mid$

Transitions for state 1:

State 2

$S \rightarrow L.=R, \$ \mid$

$R \rightarrow L., \$ \mid$

Transitions for state 2:

To State 6 on encountering =

State 3

$S \rightarrow R., \$ \mid$

Transitions for state 3:

State 4

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State 4
L->*.R,=|$|
R->.L,=|$|
L->.*R,=|$|
L->.id,=|$|

Transitions for state 4:
To State 4 on encountering *
To State 5 on encountering id
To State 7 on encountering R
To State 8 on encountering L

State 5
L->id.,=|$|

Transitions for state 5:

State 6
S->L=.R,$|
R->.L,$|
L->.*R,$|
L->.id,$|

Transitions for state 6:
To State 9 on encountering R
To State 10 on encountering L
To State 11 on encountering id
To State 12 on encountering *

State 7
L->*R.,=|$|

Transitions for state 7:

State 8
R->L.,=|$|

Transitions for state 8:

State 9
S->L-R.,=$|

Transitions for state 9:

Transitions for state 9:

State 10
R->L.,=$|

Transitions for state 10:

State 11
L->id.,=$|

Transitions for state 11:

State 12
L->*.R,$|
R->.L,$|
L->.*R,$|
L->.id,$|

Transitions for state 12:
To State 10 on encountering L
To State 11 on encountering id
To State 12 on encountering *
To State 13 on encountering R

State 13
l->*R.,=|

Transitions for state 13:

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Table:

State	id	=	*	\$	S'	S	L	R	
0	Shift 5		Shift 4			1	2	3	
1				Accept					
2		Shift 6		R (R->L)					
3				R (S->R)					
4	Shift 5		Shift 4				8	7	
5		R (L->id)		R (L->id)					
6	Shift 11		Shift 12				10	9	
7		R (L->*R)		R (L->*R)					
8		R (R->L)		R (R->L)					
9				R (S->L=R)					
10				R (R->L)					
11				R (L->id)					
12	Shift 11		Shift 12				10	13	
13		R (L->*R)							

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