

$$a) S \rightarrow SS + | SS^* | a$$

1) Aumentar gramática

$$0) S' \rightarrow S$$

$$1) S \rightarrow SS +$$

$$2) S \rightarrow SS^*$$

$$3) S \rightarrow a$$

2) Crear autómat

$$\text{cerradura}(\{S' \rightarrow \cdot S\}) = \{$$

$$S' \rightarrow \cdot S, \$$$

$$S \rightarrow \cdot SS +, \$ / a$$

$$S \rightarrow \cdot SS^*, \$ / a$$

$$S \rightarrow \cdot a, \$ / a$$

$$\} = I_0$$

$$\text{goto}(I_0, a) = \{$$

$$S \rightarrow a \cdot, \$ / a$$

$$\} = I_2$$

$$\text{goto}(I_1, a) = \{$$

$$S \rightarrow a \cdot, + / * / a$$

$$\} = I_4$$

$$\text{goto}(I_3, a) = I_4$$

$$\text{goto}(I_0, \$) = \{$$

$$S' \rightarrow S \cdot, \$$$

$$S \rightarrow S \cdot S +, \$ / a$$

$$S \rightarrow S \cdot S^*, \$ / a$$

$$S \rightarrow \cdot SS +, + / * / a$$

$$S \rightarrow \cdot SS^*, + / * / a$$

$$S \rightarrow \cdot a, + / * / a$$

$$\} = I_1$$

$$\text{goto}(I_1, \$) = \{$$

$$S \rightarrow SS \cdot +, \$ / a$$

$$S \rightarrow SS \cdot^*, \$ / a$$

$$S \rightarrow S \cdot S +, + / * / a$$

$$S \rightarrow S \cdot S^*, + / * / a$$

$$S \rightarrow \cdot SS +, + / * / a$$

$$S \rightarrow \cdot SS^*, + / * / a$$

$$S \rightarrow \cdot a, + / * / a$$

$$\} = I_3$$

$$\text{goto}(I_3, S) = \{$$

$$S \rightarrow SS \cdot +, +/\ast/a$$

$$S \rightarrow SS \cdot \ast, +/\ast/a$$

$$S \rightarrow S \cdot S +, +/\ast/a$$

$$S \rightarrow S \cdot S \ast, +/\ast/a$$

$$S \rightarrow \cdot SS +, +/\ast/a$$

$$S \rightarrow \cdot SS \ast, +/\ast/a$$

$$S \rightarrow \cdot a, +/\ast/a$$

$$\} = I_5$$

$$\text{goto}(I_5, S) = I_5$$

$$\text{goto}(I_3, +) = \{$$

$$S \rightarrow SS + \cdot, \$ / a$$

$$\} = I_6$$

$$\text{goto}(I_3, \ast) = \{$$

$$S \rightarrow SS \ast \cdot, \$ / a$$

$$\} = I_7$$

$$\text{goto}(I_5, +) = \{$$

$$S = SS + \cdot, +/\ast/a$$

$$\} = I_8$$

$$\text{goto}(I_5, \ast) = \{$$

$$S \rightarrow SS \ast \cdot, +/a/\ast$$

$$\} = I_9$$

$$\text{goto}(I_5, a) = I_4$$

Estado	a	Acción			Goto S
		+	\ast	\$	
0	d2	—	—	—	1
1	d4	—	—	aceptar	3
2	r3	—	—	r3	—
3	d4	d6	d7	—	5
4	r3	r3	r3	—	—
5	d4	d8	d9	—	5
6	r1	—	—	r1	—
7	r2	—	—	r2	—
8	r1	r1	r1	—	—
9	r2	r2	r2	—	—

Pila	Entrada	Acción
\$0	aa ta * \$	desplazar 2
\$02	a ta * \$	reducir $S \rightarrow a$
\$01	a ta * \$	desplazar 4
\$014	ta * \$	reducir $S \rightarrow a$
\$013	ta * \$	desplazar 6
\$0136	a * \$	reducir $S \rightarrow SS+$
\$01	a * \$	desplazar 4
\$014	* \$	reducir $S \rightarrow a$
\$013	* \$	desplazar 7
\$0137	\$	reducir $S \rightarrow SS^*$
\$01	\$	aceptar

Tabla LARL

Estado	a	Acción			
		+	*	\$	S
0	d2	—	—	—	1
1	d2	—	—	aceptar	3
2	r3	r3	r3	r3	
3	d2	d4	d3	—	3
4	r1	r1	r1	r1	
5	r2	r2	r2	r2	r2