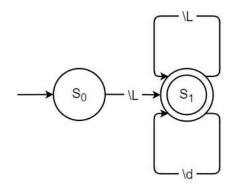
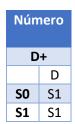
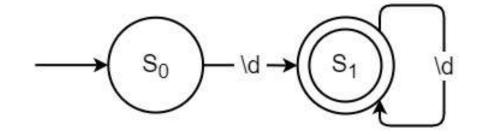
### Identificador

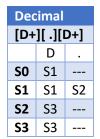
L(D|L)\*

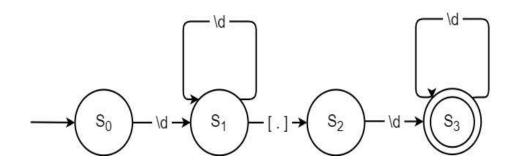
|           | L  | D  |
|-----------|----|----|
| S0        | S1 |    |
| <b>S1</b> | S1 | S1 |
| 31        | 31 | 31 |



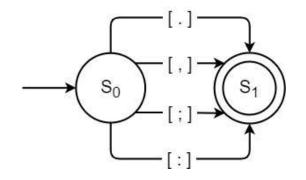






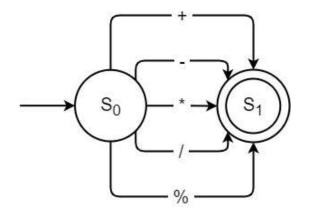


| Puntuación        |    |    |    |    |  |  |  |  |  |
|-------------------|----|----|----|----|--|--|--|--|--|
| ([:]   [;]   [:]) |    |    |    |    |  |  |  |  |  |
|                   |    | ,  | ;  | :  |  |  |  |  |  |
| SO                | S1 | S1 | S1 | S1 |  |  |  |  |  |

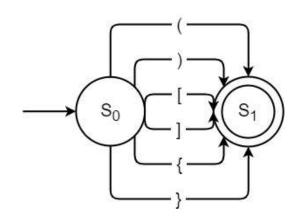


#### Operador

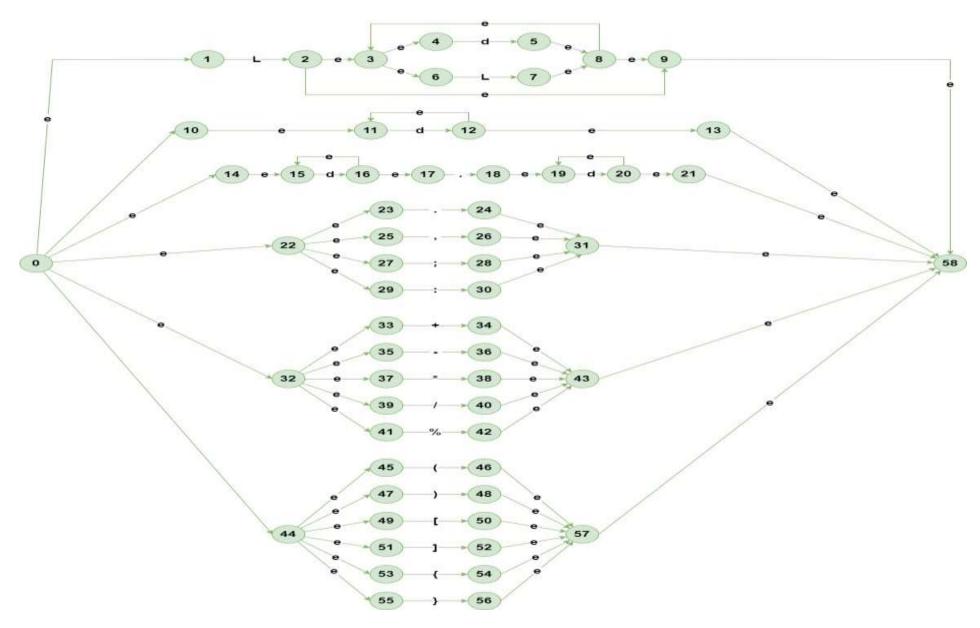
|    | +  | -  | *  | /  | %  |
|----|----|----|----|----|----|
| S0 | S1 | S1 | S1 | S1 | S1 |



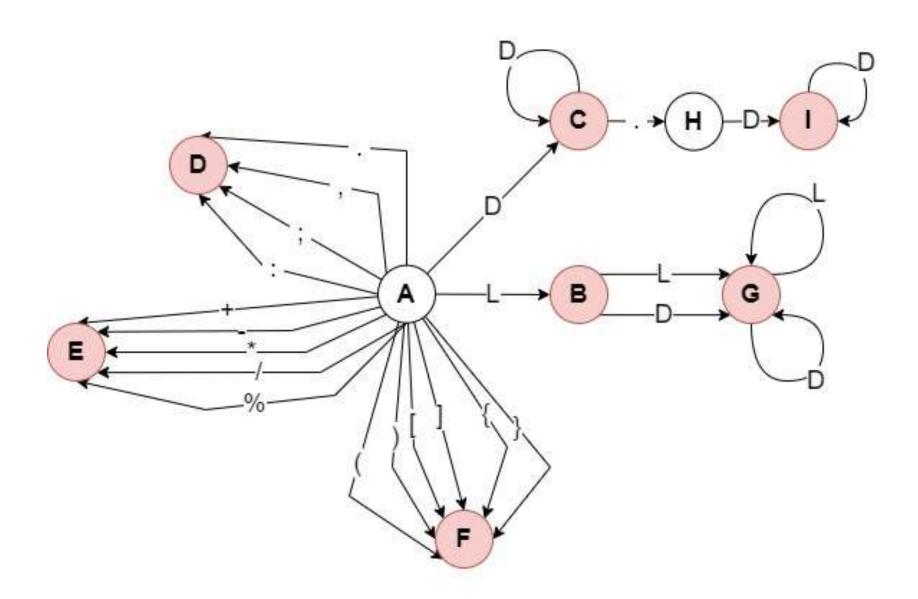
|    | Agrupación |       |                 |     |     |    |  |  |  |
|----|------------|-------|-----------------|-----|-----|----|--|--|--|
|    | "          | 7   1 | [' <b> </b> ']' | 1 ( | '}' |    |  |  |  |
|    | (          | )     | [               | ]   | {   | }  |  |  |  |
| SO | S1         | S1    | S1              | S1  | S1  | S1 |  |  |  |



### PRINCIPAL AUTOMATA



|       | €                                    | L         | D        |       | ,     | ;     | :     | +     | -     | *     | /     | %     | (     | )     | [     | ]     | {     | }     |
|-------|--------------------------------------|-----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0     | A = 1,10,11,14,15,22,23,25,27,29,32, | 2 -> B    | 12,16 -> | 24 -> | 26 -> | 28 -> | 30 -> | 34 -> | 36 -> | 38 -> | 40 -> | 42 -> | 46 -> | 48 -> | 50 -> | 52 -> | 54 -> | 56 -> |
|       | 33,35,37,39,41,44,45,47,49,51,53,55  |           | С        | D     | D     | D     | D     | Е     | Е     | E     | E     | Е     | F     | F     | F     | F     | F     | F     |
| 2     | B = 3,4,6,9, <b>58</b>               | 7 ->      | 5 -> G   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |                                      | G         |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 12,16 | C = 11,13,15,17, <mark>58</mark>     |           | 12,16 -> | 18 -> |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 24    | D = 21 F0                            |           | С        | Н     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 24    | D = 31,58                            |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 26    | D = 31,58                            |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 28    | D = 31,58                            |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 30    | D = 31,58                            |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 34    | E = 43,58                            |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 36    | E = 43, <b>58</b>                    |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 38    | E = 43, <b>58</b>                    |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 40    | E = 43, <b>58</b>                    |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 42    | E = 43, <mark>58</mark>              |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 46    | F = 57, <mark>58</mark>              |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 48    | F = 57, <mark>58</mark>              |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 50    | F = 57, <mark>58</mark>              |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 52    | F = 57, <mark>58</mark>              |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 54    | F = 57, <mark>58</mark>              |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 56    | F = 57, <mark>58</mark>              |           |          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 7     | G = 3,4,6,8,9, <b>58</b>             | 7 ->      | 5 -> G   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|       | C - 2 4 6 9 0 <b>59</b>              | G         | F . C    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 5     | G = 3,4,6,8,9, <b>58</b>             | 7 -><br>G | 5 -> G   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 18    | H = 19                               | G         | 20 -> I  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 20    |                                      |           | 20 -> 1  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| _ 20  | I = 19,21, <b>58</b>                 |           | 20 -> 1  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |



|   | No aceptación |     |  |  |  |  |  |  |  |  |  |
|---|---------------|-----|--|--|--|--|--|--|--|--|--|
|   | Α             | Н   |  |  |  |  |  |  |  |  |  |
| L | В             |     |  |  |  |  |  |  |  |  |  |
| D | С             | - 1 |  |  |  |  |  |  |  |  |  |
| • | D             |     |  |  |  |  |  |  |  |  |  |
| , | D             |     |  |  |  |  |  |  |  |  |  |
| ; | D             |     |  |  |  |  |  |  |  |  |  |
| : | D             |     |  |  |  |  |  |  |  |  |  |
| + | E             |     |  |  |  |  |  |  |  |  |  |
| - | E             |     |  |  |  |  |  |  |  |  |  |
| * | E             |     |  |  |  |  |  |  |  |  |  |
| / | E             |     |  |  |  |  |  |  |  |  |  |
| % | E             |     |  |  |  |  |  |  |  |  |  |
| ( | F             |     |  |  |  |  |  |  |  |  |  |
| ) | F             |     |  |  |  |  |  |  |  |  |  |
| [ | F             |     |  |  |  |  |  |  |  |  |  |
| ] | F             |     |  |  |  |  |  |  |  |  |  |
| { | F             |     |  |  |  |  |  |  |  |  |  |
| } | F             |     |  |  |  |  |  |  |  |  |  |

|   | Aceptación |   |   |  |  |  |  |  |  |  |  |
|---|------------|---|---|--|--|--|--|--|--|--|--|
| В | С          | G | 1 |  |  |  |  |  |  |  |  |
| G |            | G |   |  |  |  |  |  |  |  |  |
| G | С          | G | 1 |  |  |  |  |  |  |  |  |
|   | Н          |   |   |  |  |  |  |  |  |  |  |
|   |            |   |   |  |  |  |  |  |  |  |  |
|   |            |   |   |  |  |  |  |  |  |  |  |
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|   |            |   |   |  |  |  |  |  |  |  |  |
|   |            |   |   |  |  |  |  |  |  |  |  |
|   |            |   |   |  |  |  |  |  |  |  |  |
|   |            |   |   |  |  |  |  |  |  |  |  |

|   | L | D | • | , | ; | : | + | - | * | / | % | ( | ) | [ | ] | { | } |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Α | В | С | D | D | D | D | E | E | E | E | Ε | F | F | F | F | F | F |
| В | G | G |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| C |   | С | Н |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| G | G | G |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Н |   | ı |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1 |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|   | No aceptacion |           |
|---|---------------|-----------|
|   | S0={A}        | S4={H}    |
| L | <b>S1</b>     |           |
| D | S2            | <b>S3</b> |
|   | <b>S5</b>     |           |
| , | <b>S5</b>     |           |
| ; | <b>S5</b>     |           |
| : | <b>S5</b>     |           |
| + | <b>S6</b>     |           |
| - | <b>S6</b>     |           |
| * | <b>S6</b>     |           |
| / | <b>S6</b>     |           |
| % | <b>S6</b>     |           |
| ( | <b>S7</b>     |           |
| ) | <b>S7</b>     |           |
| [ | <b>S7</b>     |           |
| ] | <b>S7</b>     |           |
| { | <b>S7</b>     |           |
| } | <b>S7</b>     |           |

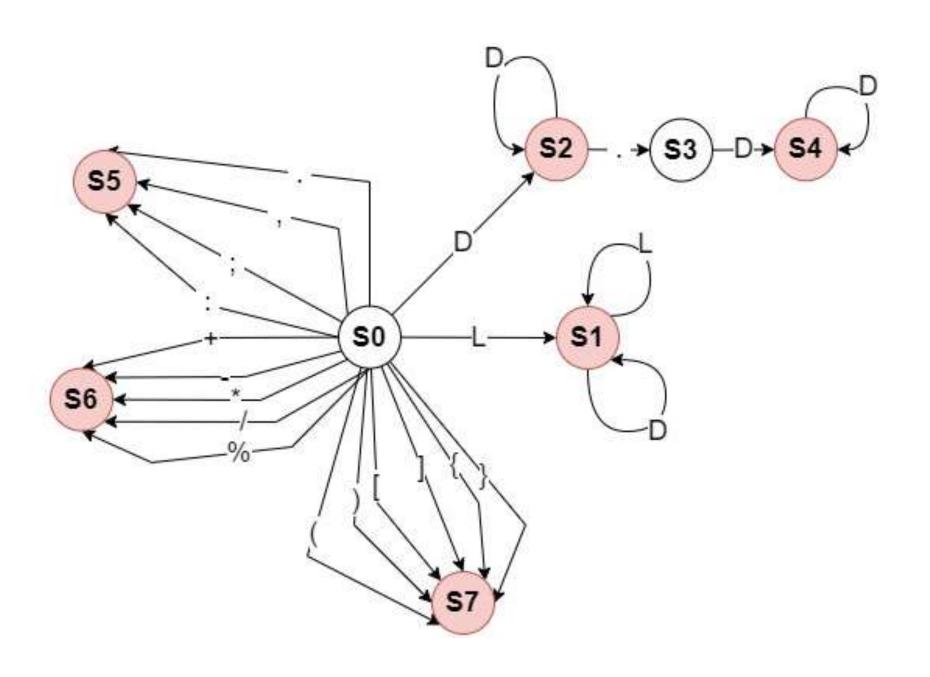
| aceptacion |           |           |
|------------|-----------|-----------|
| S1={B,G}   | S2={C}    | S3={I}    |
| S1         |           |           |
| S1         | <b>S2</b> | <b>S3</b> |
|            | S4        |           |
|            |           |           |
|            |           |           |
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|            |           |           |
|            |           |           |

|           | L         | D         |           | ,         | ;         | :         | +         | -         | *         | /         | %         | (         | )         | [         | ]         | {         | }         |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| SO        | <b>S1</b> | <b>S2</b> | <b>S5</b> | <b>S5</b> | <b>S5</b> | <b>S5</b> | <b>S6</b> | <b>S6</b> | <b>S6</b> | <b>S6</b> | <b>S6</b> | <b>S7</b> | <b>S7</b> | <b>S7</b> | <b>S7</b> | <b>S7</b> | <b>S7</b> |
| <b>S1</b> | <b>S1</b> | <b>S1</b> |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| <b>S2</b> |           | <b>S2</b> | <b>S3</b> |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| <b>S3</b> |           | <b>S4</b> |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| <b>S4</b> |           | <b>S4</b> |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |

## **FUNCION DE TRANSICION**

| $\delta(0,L)=1$                 | $\delta(0, '(') = 7$    |
|---------------------------------|-------------------------|
| $\delta(0,D)=2$                 | $\delta(0, ')') = 7$    |
| $\delta(0, '.') = 5$            | $\delta(0, '[']) = 7$   |
| $\delta(0, ', ') = 5$           | $\delta(0,']') = 7$     |
| $\delta(0, ';') = 5$            | $\delta(0, '\{'\}) = 7$ |
| $\delta(0, ':') = 5$            | $\delta(0,')') = 7$     |
| $\delta(0,+)=6$                 | $\delta(1,L)=1$         |
| $\delta(0,-)=6$                 | $\delta(1,D)=1$         |
| $\delta(0,*)=6$                 | $\delta(2,D)=2$         |
| $\delta(0,/)=6$                 | $\delta(2, '.') = 3$    |
| $\boldsymbol{\delta}(0,\%) = 6$ | $\delta(3,D)=4$         |
|                                 | $\delta(4,D)=4$         |

# FORMA MÍNIMA DEL AFD



# DEFINICION FORMAL

| Conjunto de estados   | $Q = \{S_0, S_1, S_2, S_3, S_4, S_5, S_6, S_7\}$      |                        |                           |                        |  |
|-----------------------|---|------------------------|---------------------------|------------------------|--|
| <b>Estado inicial</b> | $S_0$   |                        |                           |                        |  |
| Alfabeto              | $\Sigma = \{L, D, .,,,;,:,+,-,*,/,\%,(,),\{,\},[,]\}$ |                        |                           |                        |  |
| Estados de aceptación | $F = S_1, S_2, S_3, S_4, S_5, S_6, S_7$               |                        |                           |                        |  |
| Función de Transición | $\delta(S_0, L) = S_1$                                | $\delta(S_0,+)=S_6$    | $\delta(S_0, '(') = S_7$  | $\delta(S_1, L) = S_1$ |  |
|                       | $\delta(S_0, D) = S_2$                                | $\delta(S_0, -) = S_6$ | $\delta(S_0, ')') = S_7$  | $\delta(S_1, D) = S_1$ |  |
|                       | $\delta(S_0,.) = S_5$                                 | $\delta(S_0,*)=S_6$    | $\delta(S_0, '[') = S_7$  | $\delta(S_2, D) = S_2$ |  |
|                       | $\delta(S_0,,)=S_5$                                   | $\delta(S_0,/) = S_6$  | $\delta(S_0, ']') = S_7$  | $\delta(S_2,) = S_3$   |  |
|                       | $\delta(S_0,;)=S_5$                                   | $\delta(S_0,\%) = S_6$ | $\delta(S_0, '\{') = S_7$ | $\delta(S_3, D) = S_4$ |  |
|                       | $\delta(S_0,:) = S_5$                                 |                        | $\delta(S_0, ')') = S_7$  | $\delta(S_4, D) = S_4$ |  |