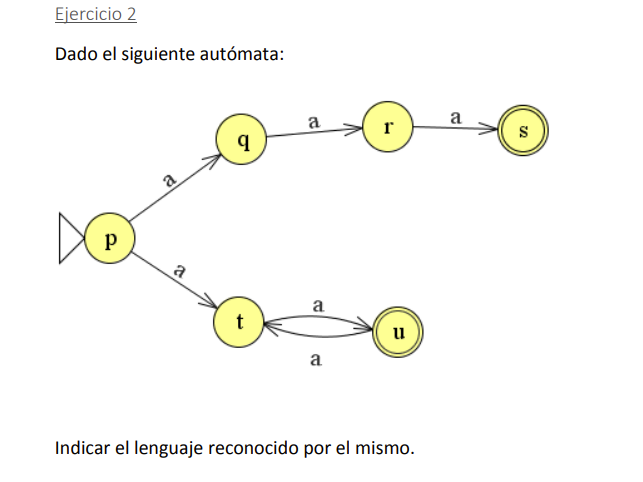
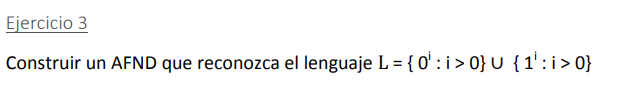


L={10,101010101010…,} 🡪 L={(10n) : n>0}



L={aaa,a2n : n>0}



Un reloj con números romanos

Descripción generada automáticamente con confianza media

Imagen que contiene Forma

Descripción generada automáticamente

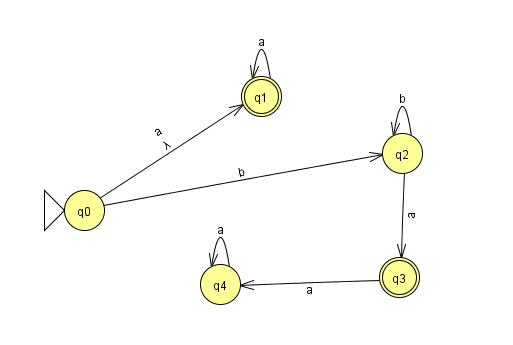


Imagen que contiene Logotipo

Descripción generada automáticamente

Un reloj con números romanos

Descripción generada automáticamente con confianza media

Armamos la tabla:

|  |  |  |
| --- | --- | --- |
|  | 0 | 1 |
| 🡪q0 | q1q3 | q2q4 |
| \*q1 | q1 |  |
| \*q2 |  | q2 |
| q3 |  |  |
| q4 |  |  |

El conjunto de estados de entradas en 0 y 1 de la primera fila pasan a ser un nuevo estado, rearmamos la tabla y establecemos E.

|  |  |  |
| --- | --- | --- |
|  | 0 | 1 |
| 🡪q0 | q1q3 | q2q4 |
| \*q1q3 | q1 | E |
| \*q2q4 | E | q2 |
| \*q1 | q1 | E |
| \*q2 | E | q2 |

Renombramos los estados:

q0🡪A

{q1q3}🡪B

{q2q4}🡪C

q1🡪D

q2🡪F

Rearmamos la tabla con el AFD obtenido

|  |  |  |
| --- | --- | --- |
|  | 0 | 1 |
| 🡪A | B | C |
| \*B | D | E |
| \*C | E | F |
| \*D | D | E |
| \*F | E | F |
| E | E | E |

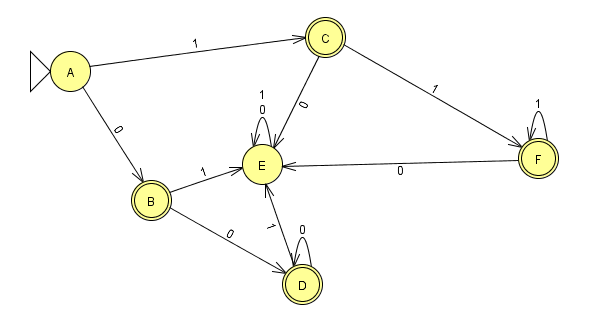
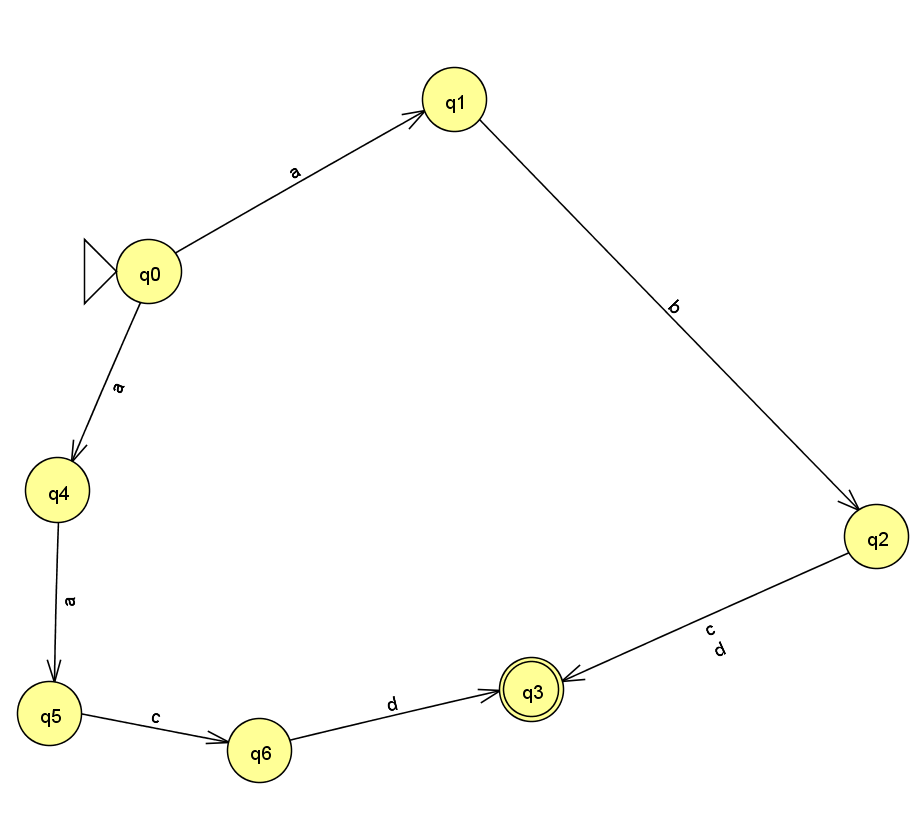


Imagen que contiene Texto

Descripción generada automáticamente

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a | b | c | d |
| 🡪q0 | q1q4 |  |  |  |
| q1 |  | q2 |  |  |
| q2 |  |  | q3 | q3 |
| \*q3 |  |  |  |  |
| q4 | q5 |  |  |  |
| q5 |  |  | q6 |  |
| q6 |  |  |  | q3 |



Tomo la primera fila y agrupo los conjuntos de estados en cada entrada correspondiente en un nuevo estado, establezco E donde corresponda.

Rearmamos la tabla:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a | b | c | d |
| 🡪q0 | q1q4 | E | E | E |
| q1q4 | q5 | q2 | E | E |
| q2 | E | E | q3 | q3 |
| \*q3 | E | E | E | E |
| q5 | E | E | q6 | E |
| q6 | E | E | E | q3 |

Renombramos los estados:

{q0}🡪A

{q1q4}🡪B

{q2}🡪C

{q3}🡪D

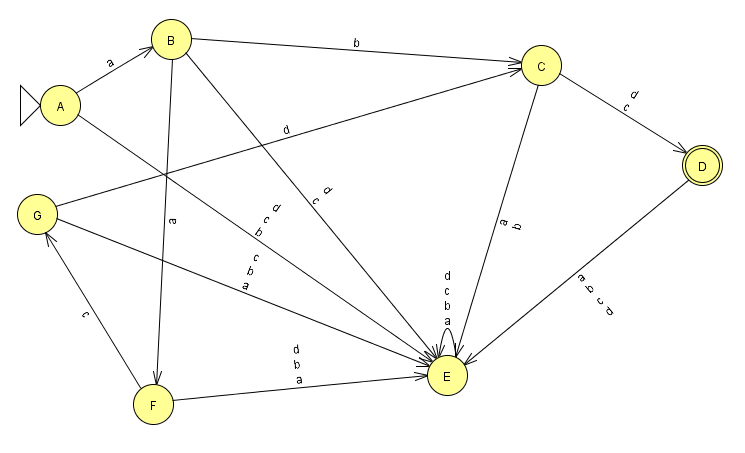
{q5}🡪F

{q6}🡪G

Armamos la tabla

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a | b | c | d |
| 🡪A | B | E | E | E |
| B | F | C | E | E |
| C | E | E | D | D |
| \*D | E | E | E | E |
| F | E | E | G | E |
| G | E | E | E | C |
| E | E | E | E | E |

OBTUVIMOS EL AFD



Si lo queremos minimizar:

No hay estados inalcanzables ha eliminar

El conjunto cociente Q/E0={{A,B,C,E,F,G},{D}}

Renombramos los subconjuntos:

{A,B,C,E,F,G}🡪1

{D}🡪2

Rearmamos la tabla:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a | b | c | d |
| 🡪A | 1 | 1 | 1 | 1 |
| B | 1 | 1 | 1 | 1 |
| C | 1 | 1 | 2 | 2 |
| \*D | 1 | 1 | 1 | 1 |
| F | 1 | 1 | 1 | 1 |
| G | 1 | 1 | 1 | 1 |
| E | 1 | 1 | 1 | 1 |

Agrupamos según comportamiento:

El conjunto cociente Q/E1={{A,B,E,F,G},{C},{D}}

Q/E0≠Q/E1

Renombramos los subconjuntos:

{A,B,E,F,G}🡪3

{C}🡪4

{D}🡪5

Rearmamos la tabla:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a | b | c | d |
| 🡪A | 3 | 3 | 3 | 3 |
| B | 3 | 4 | 3 | 3 |
| C | 3 | 3 | 5 | 5 |
| \*D | 3 | 3 | 3 | 3 |
| F | 3 | 3 | 3 | 3 |
| G | 3 | 3 | 3 | 4 |
| E | 3 | 3 | 3 | 3 |

Agrupamos según comportamiento:

El conjunto cociente Q/E2={{A,F,E},{B},{C},{G},{D}}

Q/E1≠Q/E2

Renombramos los subconjuntos:

{A,F,E}🡪6

{B}🡪7

{C}🡪8

{G}🡪9

{D}🡪10

Rearmamos la tabla:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a | b | c | d |
| 🡪A | 7 | 6 | 6 | 6 |
| B | 6 | 8 | 6 | 6 |
| C | 6 | 6 | 10 | 10 |
| \*D | 6 | 6 | 6 | 6 |
| F | 6 | 6 | 9 | 6 |
| G | 6 | 6 | 6 | 8 |
| E | 6 | 6 | 6 | 6 |

Agrupamos según comportamiento:

El conjunto cociente Q/E3={{A},{B},{C},{E},{F},{G},{D}}

Q/E2≠Q/E3

Renombramos los subconjuntos:

{A}🡪11

{B}🡪12

{C}🡪13

{E}🡪14

{F}🡪15

{G}🡪16

{D}🡪17

Rearmamos la tabla:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a | b | c | d |
| 🡪A | 12 | 14 | 14 | 14 |
| B | 15 | 13 | 14 | 14 |
| C | 14 | 14 | 17 | 17 |
| \*D | 14 | 14 | 14 | 14 |
| F | 14 | 14 | 16 | 14 |
| G | 14 | 14 | 14 | 13 |
| E | 14 | 14 | 14 | 14 |

Agrupamos según comportamiento:

Conjunto Cociente Q/E4={{A},{B},{C},{E},{F},{G},{D}}

Q/E3=Q/E4

Encontramos AFD mínimo

Renombramos los estados:

{A}🡪H

{B}🡪I

{C}🡪J

{E}🡪K

{F}🡪L

{G}🡪M

{D}🡪N

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a | b | c | d |
| 🡪H | I | K | K | K |
| I | L | J | K | K |
| J | K | K | N | N |
| \*N | K | K | K | K |
| L | K | K | M | K |
| M | K | K | K | J |
| K | K | K | K | K |

