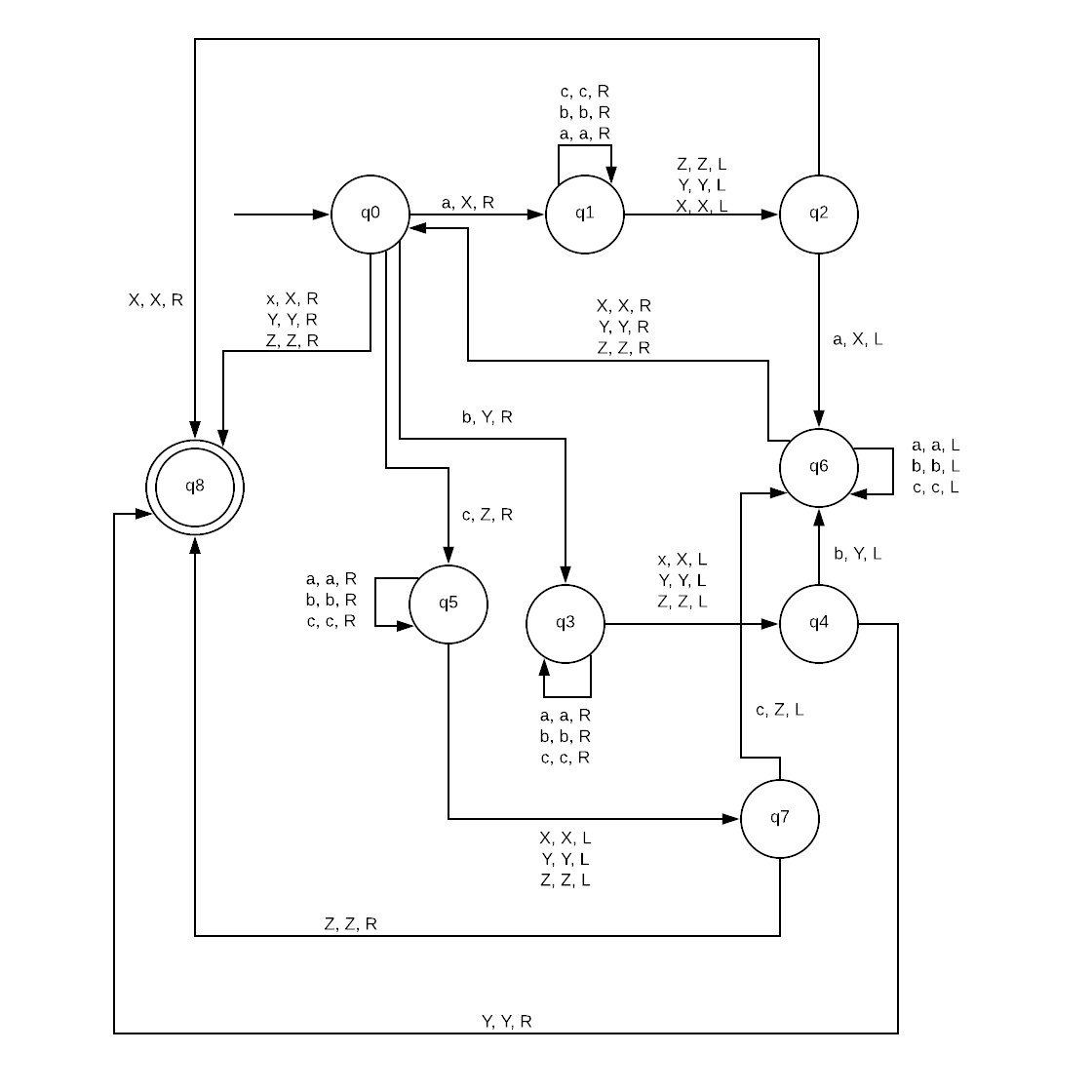
Máquinas de Turing

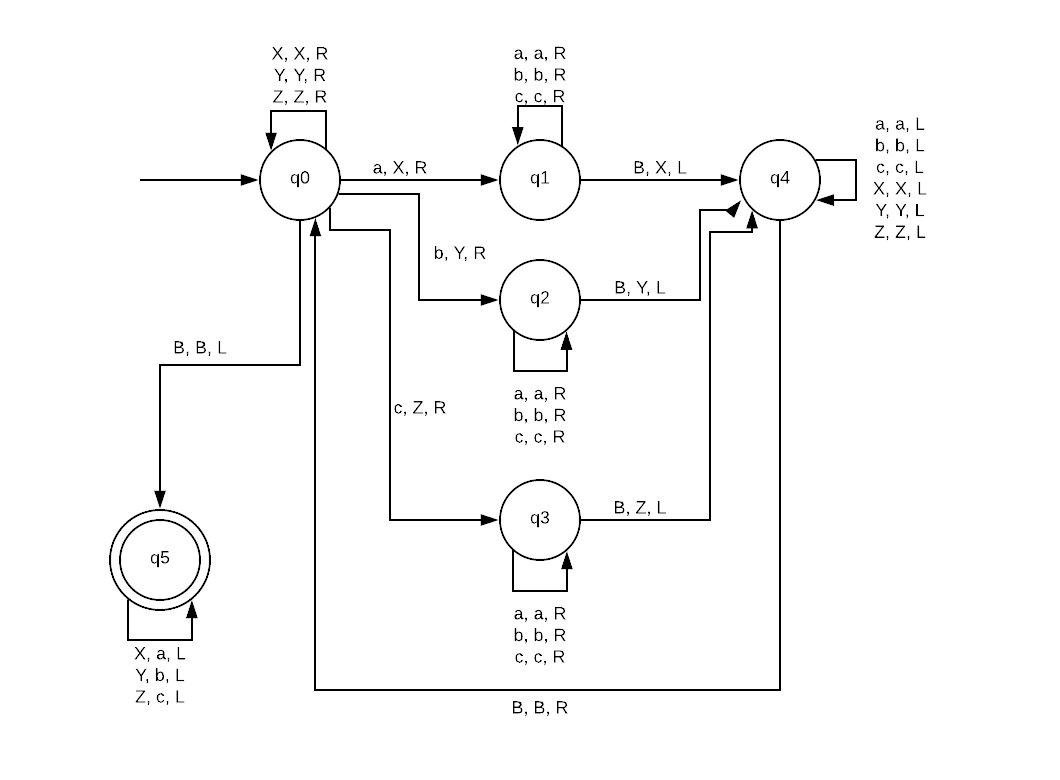
1. Reconocedor de palindromes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | a | b | c | X | Y | Z | B |
|  | ( | ( | ( | ( | ( | ( |  |
|  | ( | ( | ( | ( | ( | ( | ( |
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|  | ( | ( | ( | ( | ( | ( | ( |
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|  | ( | ( | ( | ( | ( | ( | ( |
|  |  |  | ( |  |  | ( |  |
|  | ( | ( | ( | ( | ( | ( |  |
|  |  |  |  |  |  |  |  |



1. Copia de patrones

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | a | b | c | X | Y | Z | B |
| q0 | q1, X, R | q2, Y, R | q3, Z, R | q0, X, R | q0, Y, R | q0, Z, R | q5, B, L |
| q1 | q1, a, R | q1, b, R | q1, c, R | q1, X, R | q1, Y, R | q1, Z, R | q4, X, L |
| q2 | q2, a, R | q2, b, R | q2, c, R | q2, X, R | q2, Y, R | q2, Z, R | q4, Y, L |
| q3 | q3, a, R | q3, b, R | q3, c, R | q3, X, R | q3, Y, R | q3, Z, R | q4, Z, L |
| q4 | q4, a, L | q4, b, L | q4, c, L | q4, X, L | q4, Y, L | q4, Z, L | q0, B, R |
| q5 |  |  |  | q5, a, L | q5, b, L | q5, c, L |  |



X, X, R

Y, Y, R

Z, Z, R

X, X, R

Y, Y, R

Z, Z, R

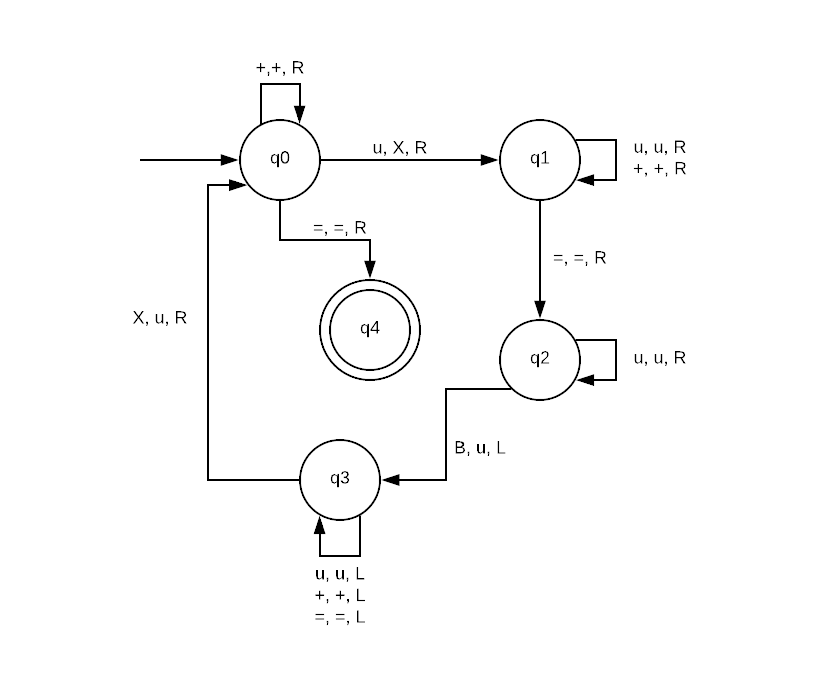
X, X, R

Y, Y, R

Z, Z, R

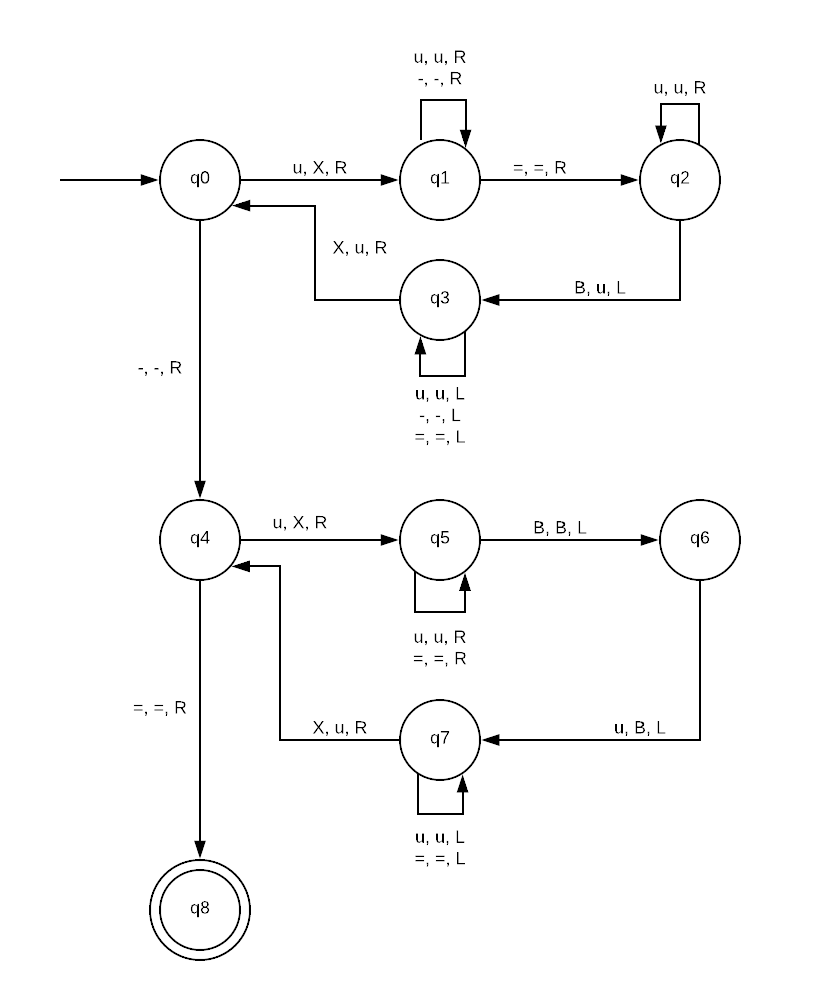
1. Suma Unaria

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | u | + | = | B | X |
| q0 | q1, X, R | q0, + , R | q4, =, R |  |  |
| q1 | q1, u, R | q1, +, R | q2, =, R |  |  |
| q2 | q2, u, R |  |  | q3, u, L |  |
| q3 | q3, u, L | q3, +, L | q3, =, L |  | q0, u, R |
| q4 |  |  |  |  |  |



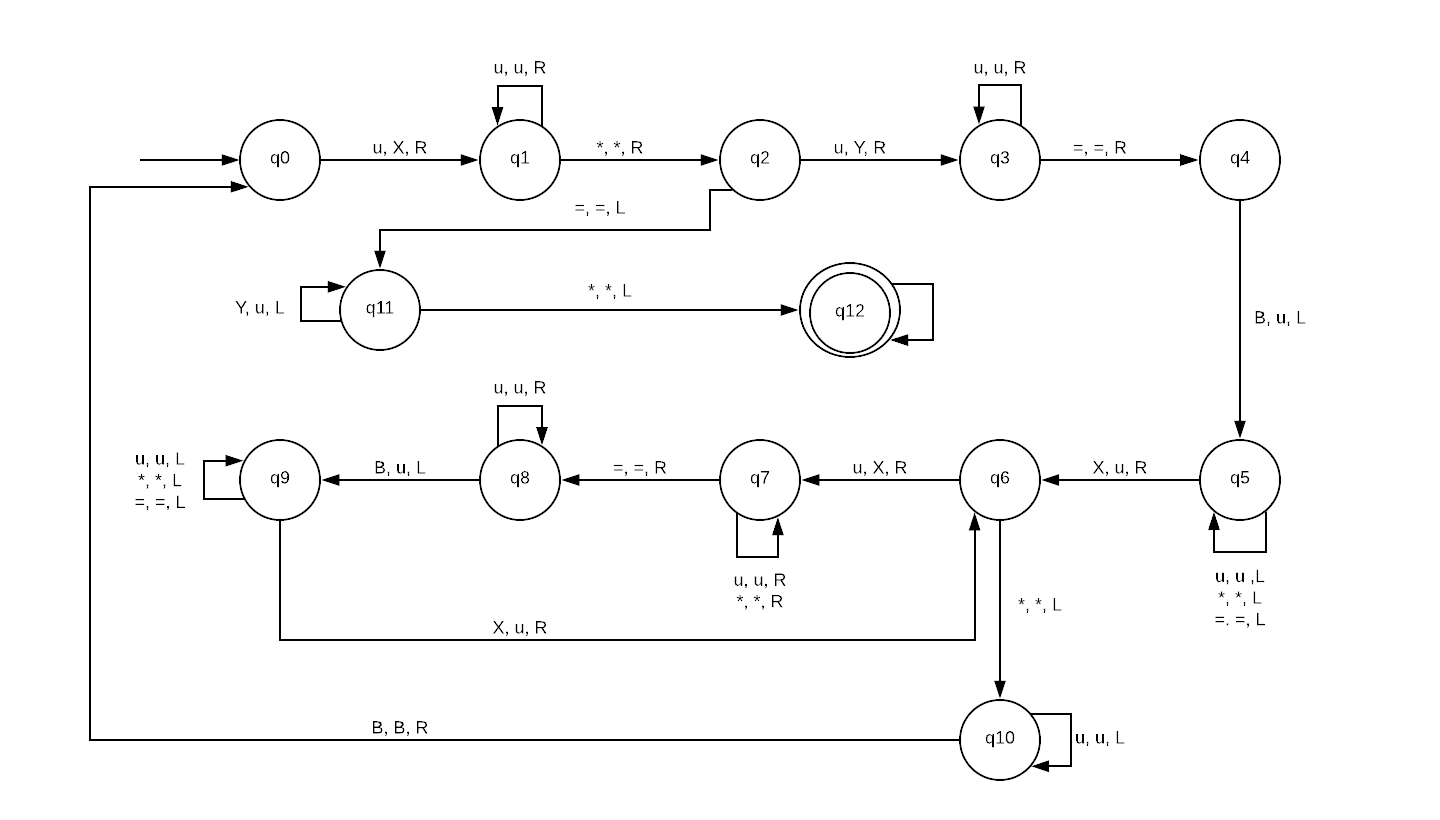
1. Resta Unaria

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | u | - | = | B | X |
| q0 | q1, X, R | q4, -, R |  |  |  |
| q1 | q1, u, R | q1, -, R | q2, =, R |  |  |
| q2 | q2, u, R |  |  | q3, u, L |  |
| q3 | q3, u, L | q3, -, L | q3, =, L |  | q0, u, R |
| q4 | q5, X, R |  | q8, =, L |  |  |
| q5 | q5, u, R |  | q5, =, R | q6, B, L |  |
| q6 | q7, B, L |  |  |  |  |
| q7 | q7, u, L |  | q7, =, L |  | q4, u, R |
| q8 |  |  |  |  |  |



1. Multiplicacion Unaria

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | u | \* | = | B | X | Y |
| q0 | q1, X, R |  |  |  |  |  |
| q1 | q1, u, R | q2, \*, R |  |  |  |  |
| q2 | q3, Y, R |  | q11, =, L |  |  | q2, Y, R |
| q3 | q3, u, R |  | q4, =, R |  |  |  |
| q4 | q4, u, R |  |  | q5, u, L |  |  |
| q5 | q5, u, L | q5, \*, L | q5, =, L |  | q6, u, R | q5, Y, L |
| q6 | q7, X, R | q10, \*, L |  |  |  |  |
| q7 | q7, u, R | q7, \*, R | q8, =, R |  |  | q7, Y, L |
| q8 | q8, u, R |  |  | q9, u, L |  |  |
| q9 | q9, u, L | q9, \*, L | q9, =, L |  | q6, u, R |  |
| q10 | q10, u, L |  |  | q0, B, R |  |  |
| q11 |  | q12, \*, L |  |  |  | q11, u, L |
| q12 | q12, u, L |  |  |  | q12, u, L |  |



Y, Y, L

Y, Y, L

u, u, L

X, u, L