|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | alpha | ( | [ | ) | ] | eps |
| q0 | Z0 | q0, Z0 | q1, X1 Z0 | q1, X2 Z0 |  |  |  |
| X1 | q0, X1 |  |  |  |  |  |
| X2 | q0, X2 |  |  |  |  |  |
| q1 | Z0 | q1, Z0 | q1, X1 Z0 | q1, X2 Z0 |  |  | q2, Z0 |
| X1 | q1, X1 | q1, X1 X1 | q1, X2 X1 | q1, eps |  |  |
| X2 | q1, X2 | q1, X1 X2 | q1, X2 X2 |  | q1, eps |  |
| q2 | Z0 |  |  |  |  |  |  |
| X1 |  |  |  |  |  |  |
| X2 |  |  |  |  |  |  |

alpha denotes any symbol that is neither of (, ), [, ]

q0 is the initial state and q2 is the final state

q0 ensures that there is at least an open parantheses or bracket

|  |  |  |
| --- | --- | --- |
| q0 | a[2\*(i+1)], (b[i] - 1) | Z0 |
| q0 | [2\*(i+1)], (b[i] - 1) | Z0 |
| q1 | 2\*(i+1)], (b[i]-1) | X2 Z0 |
| q1 | \*(i+1)], (b[i]-1) | X2 Z0 |
| q1 | (i+1)], (b[i]-1) | X2 Z0 |
| q1 | i+1)], (b[i]-1) | X1 X2 Z0 |
| q1 | i+1)], (b[i]-1) | X1 X2 Z0 |
| q1 | "+1)], (b[i]-1)" | X1 X2 Z0 |
| q1 | 1)], (b[i]-1) | X1 X2 Z0 |
| q1 | )], (b[i]-1) | X1 X2 Z0 |
| q1 | ], (b[i]-1) | X2 Z0 |
| q1 | (b[i]-1) | Z0 |
| q1 | b[i]-1) | X1 Z0 |
| q1 | [i]-1) | X1 Z0 |
| q1 | i]-1) | X2 X1 Z0 |
| q1 | ]-1) | X2 X1 Z0 |
| q1 | "-1)" | X1 Z0 |
| q1 | 1) | X1 Z0 |
| q1 | ) | X1 Z0 |
| q1 | eps | Z0 |
| q2 | eps | Z0 |