

Machine: 4-Tape Palindrome Checker

Tape Input(s): ['abba', '****', '****', '****']

Step 1:
Tape 1: abba
Tape 2: ****
Tape 3: ****
Tape 4: ****
Selected Transition: ('q0', ('a', '*', '*', '*')) -> q1, ('*', 'a', '*', '*'), ('R', 'R', 'S', 'S')

Step 2:
Tape 1: a bba
Tape 2: a ***
Tape 3: ****
Tape 4: ****
Selected Transition: ('q1', ('b', '*', '*', '*')) -> q1, ('*', 'b', '*', '*'), ('R', 'R', 'S', 'S')

Step 3:
Tape 1: ab ba
Tape 2: ab **
Tape 3: ****
Tape 4: ****
Selected Transition: ('q1', ('b', '*', '*', '*')) -> q1, ('*', 'b', '*', '*'), ('R', 'R', 'S', 'S')

Step 4:
Tape 1: abb a
Tape 2: abb *
Tape 3: ****
Tape 4: ****
Selected Transition: ('q1', ('a', '*', '*', '*')) -> q1, ('*', 'a', '*', '*'), ('R', 'R', 'S', 'S')

Step 5:
Tape 1: abba _
Tape 2: abba _
Tape 3: ****
Tape 4: ****
Selected Transition: ('q1', ('*', '*', '*', '*')) -> q2, ('*', '*', '*', '*'), ('S', 'L', 'S', 'S')

Step 6:
Tape 1: abba _
Tape 2: abb a_
Tape 3: ****
Tape 4: ****
Selected Transition: ('q2', ('*', '*', '*', '*')) -> qacc, ('*', '*', '*', '*'), ('S', 'S', 'S', 'S')

Machine Accepted