

Accept Cases:

1. String: aaaa

```
$ python3 traceNTM_ekoran.py test-files/check_a_plus_ekoran.csv aaaa 100
Nondeterministic Turing Machine Info:
  Machine Name: a+
    States: q1, q2, q3
    Sigma: a
    Gamma: a, _
  Start State: q1
  Accept State: q3
  Reject State: qreject
Input String: aaaa
Transitions Simulated: 12
String accepted in 5 steps:
  q1 aaaa_
  a q1 aaa_
  aa q1 aa_
  aaa q1 a_
  aaaa q2 _
  aaa q3 a_
Degree of Nondeterminism: 2.1666666666666665
Nondeterminism Summary:
  Level    # Configs    # Outgoing Transitions    # NonLeaves    Transitions/NonLeaves
    0         1             2             1             2.0
    1         2             3             2             1.5
    2         3             3             2             1.5
    3         3             3             2             1.5
    4         3             1             1             1.0
    5         1             0             0             0
```

2. String: aaaaaaaaaa

```
$ python3 traceNTM_ekoran.py test-files/check_a_plus_ekoran.csv aaaaaaaaaa 100
Nondeterministic Turing Machine Info:
  Machine Name: a+
    States: q1, q2, q3
    Sigma: a
    Gamma: a, _
  Start State: q1
  Accept State: q3
  Reject State: qreject
Input String: aaaaaaaaaa
Transitions Simulated: 33
String accepted in 12 steps:
  q1 aaaaaaaaaa_
  a q1 aaaaaaaaaa_
  aa q1 aaaaaaaaaa_
  aaa q1 aaaaaaaaaa_
  aaaa q1 aaaaaaaa_
  aaaaa q1 aaaaaaa_
  aaaaaa q1 aaaaaa_
  aaaaaaa q1 aaaaa_
  aaaaaaaa q1 aaaa_
  aaaaaaaaa q1 aaa_
  aaaaaaaaaa q1 aa_
  aaaaaaaaaa q1 a_
  aaaaaaaaaa q2 _
  aaaaaaaaaa q3 a_
Degree of Nondeterminism: 2.6153846153846154
Nondeterminism Summary:
  Level    # Configs    # Outgoing Transitions    # NonLeaves    Transitions/NonLeaves
    0         1             2             1             2.0
    1         2             3             2             1.5
    2         3             3             2             1.5
    3         3             3             2             1.5
    4         3             3             2             1.5
    5         3             3             2             1.5
    6         3             3             2             1.5
    7         3             3             2             1.5
    8         3             3             2             1.5
    9         3             3             2             1.5
   10         3             3             2             1.5
   11         3             1             1             1.0
   12         1             0             0             0
```

Reject Cases:

1. String: empty string

```
$ python3 traceNTM_ekoran.py test-files/check_a_plus_ekoran.csv _ 100
Nondeterministic Turing Machine Info:
  Machine Name: a+
    States: q1, q2, q3
    Sigma: a
    Gamma: a, _
  Start State: q1
  Accept State: q3
  Reject State: qreject
Input String:
Transitions Simulated: 1
String rejected in 1 step
Degree of Nondeterminism: 1.0
```

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