

HÁSKÓLI ÍSLANDS

FORMLEG MÁL OG REIKNANLEIKI

Homework 8

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1. daemi

```

// Input: a ternary number w
// Ouput: subtracts 2 from w, computes in-place and accepts
//         rejects if outcome is negative
// Example: accepts 2011
//           rejects 01
//
// Ternary string minus 2
// for Turing Machine Simulator
// turingmachinesimulator.com
//
// ----- States -----|
// q0                      |
// q1                      |
// q2                      |
// q3                      |
// q4                      |
// q5                      |
// q6                      |
// qaccept - accepting state |
//-----|

name: Ternary string - 2
init: q0
accept: qAccept

// make sure w >= 2 so
// we dont get negative number
q0,0
q0,0,>

q0,1
q2,1,>

q0,2
q1,2,>

q2,0
q1,0,>

q2,1
q1,1,>

q2,2
q1,2,>

q1,0
q1,0,>

q1,1
q1,1,>

q1,2
q1,2,>

q1,_
q3,-,<

// w is >= 2

```

```
q3,2
q6,0,-

q3,0
q4,1,<

q3,1
q4,2,<

q4,1
q6,0,-

q4,2
q6,1,-

q4,0
q5,2,<

q5,2
q5,1,<

q5,1
q5,0,<

q5,0
q5,2,<

q5,_
q6,_,-

// make sure head ends
// at start of string

q6,0
q6,0,<

q6,1
q6,1,<

q6,2
q6,2,<

q6,_
qAccept,_,>
```

Ternary string - 2

Steps: 2State: qXRejected (show output)

01

Load

▶

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Speed:

Examples

Tutorials

Info

Ternary string - 2

Steps: 11State: qAcceptAccepted (show output)

0221

Load

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Speed:

Ternary string - 2

Steps: 11State: qAcceptAccepted (show output)

2002

Load

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Speed:

3