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GHCi, version 8.0.2: http://www.haskell.org/ghc/  :? for help
Prelude> :l hw9
[1 of 2] Compiling Turing          ( Turing.hs, interpreted )
[2 of 2] Compiling Main            ( hw9.hs, interpreted )
Ok, modules loaded: Main, Turing.
*Main> stepRun countDGGD ""
0: ScanD1      [ ]
*Main> stepRun countDGGD "gd"
0: ScanD1      [g]d
1: ScanD1      g[d]
2: ScanG1      gd[ ]
*Main> stepRun countDGGD "dgd"
0: ScanD1      [d]gd
1: ScanG1      d[g]d
2: ScanG2      dg[d]
3: ScanG1      dgd[ ]
*Main> stepRun countDGGD "dggg"
0: ScanD1      [d]ggg
1: ScanG1      d[g]gg
2: ScanG2      dg[g]g
3: ScanD2      dgg[g]
4: ScanD1      dggg[ ]
*Main> stepRun countDGGD "dggd"
0: ScanD1      [d]ggd
1: ScanG1      d[g]gd
2: ScanG2      dg[g]d
3: ScanD2      dgg[d]
4: tally      dggd[ ]
5: back       dgg[D]1
6: ScanG1      dggd[1]
*Main> stepRun countDGGD "ddggdddddggdggdggggd"
0: ScanD1      [d]ddggdddddggdggdggggd
1: ScanG1      d[d]ggdddddggdggdggggd
3: ScanG2      ddg[g]dddddggdggdggggd
4: ScanD2      ddgg[d]dddddggdggdggggd
5: tally      ddggd[d]dddddggdggdggggd
19: tally     ddggDdddggdggdggggd[ ]
20: back      ddggDdddggdggdggggd[d]1
34: back      ddgg[D]dddddggdggdggggd1
38: ScanG1    ddggddddd[g]gdggdggggd1
39: ScanG2    ddggddddd[g]dggdggggd1
40: ScanD2    ddggdddddg[d]ggdggggd1
60: back     ddggdddddgg[D]ggdggggd11
61: ScanG1    ddggdddddggd[g]gdggggd11
62: ScanG2    ddggdddddggdg[g]dggggd11
63: ScanD2    ddggdddddggdgg[d]ggggd11
80: ScanG1    ddggdddddggdggd[g]gggd111
81: ScanG2    ddggdddddggdggdg[g]ggd111
82: ScanD2    ddggdddddggdggdgg[g]gd111
83: ScanD1    ddggdddddggdggdggg[g]d111
84: ScanD1    ddggdddddggdggdgggg[d]111
85: ScanG1    ddggdddddggdggdggggd[1]11
*Main>
*Main> stepRun rev ""
0: read      [ ]
1: Clean     [ ]
*Main> stepRun rev "m"
0: read      [m]
1: writeM    [ ]x
2: scroll    m[x]
3: read      mx[ ]
4: Clean     m[x]
5: Clean     [m]
*Main> stepRun rev "qm"
0: read      [q]m
1: writeQ    [ ]xm
2: scroll    q[x]m
3: read      qx[m]
4: writeM    q[x]x
6: writeM    [ ]qxx
7: scroll    m[q]xx
8: scroll    mq[x]x
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9: read      mqx[x]
10: read     mqxx[ ]
11: Clean    mqx[x]
12: Clean    mq[x]
13: Clean    m[q]
*Main> stepRun rev "mqqmmmq"
0: read      [m]qqmmmq
1: writeM    [ ]xqqmmmq
2: scroll    m|x|qqmmmq
3: read     mx|q|qmmmq
4: writeQ    m|x|xqmmmq
6: writeQ    [ ]mxxqmmmq
7: scroll    q[m]xxqmmmq
8: scroll    qm|x|xqmmmq
9: read     qmx[x]qmmmq
10: read    qmxx[q]mmmq
11: writeQ   qmx[x]xmmmq
16: scroll    q[q]mxxxmmmq
21: read     qqmxxx[m]mmq
28: writeM   [ ]qqmxxxmmmq
36: read     mqqmxxx[m]mq
55: read     mmqmqmxxx[m]q
78: read     mmmqmqmxxx[q]
105: read    qmmmqmqmxxx[ ]
106: Clean   qmmmqmqmxxx[x]
107: Clean   qmmmqmqmxxx[x]
113: Clean   qmmmqq[m]
*Main>
*Main> stepRun more4's ""
0: start     [ ]
1: Done      N[ ]
*Main> stepRun more4's "3"
0: start     [3]
1: dropY     [ ]
2: less      [ ]
3: Done      N[ ]
*Main> stepRun more4's "4"
0: start     [4]
1: dropN     [ ]
2: more      [ ]
3: Done      Y[ ]
*Main> stepRun more4's "5443"
0: start     [5]443
1: dropY     [4]43
2: back      [ ]x43
3: start     [x]43
4: start     [4]3
5: dropN     [3]
6: back      [ ]x
7: start     [x]
8: start     [ ]
9: Done      N[ ]
*Main> stepRun more4's "345544454"
0: start     [3]45544454
1: dropY     [4]5544454
2: back      [ ]x5544454
3: start     [x]5544454
4: start     [5]544454
6: dropY     5[4]4454
9: start     [5]x4454
11: dropY    x[4]454
13: back     [ ]xx454
16: start    [4]54
17: dropN    [5]4
18: back     [ ]x4
19: start    [x]4
20: start    [4]
21: dropN    [ ]
22: more     [ ]
23: Done     Y[ ]
*Main>
*Main> stepRun xor "1#1"
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0: Read      [1]#1
1: left1     [#]1
2: xor1      #[1]
3: back      [#]F
4: back      [ ]#F
5: Read      [#]F
6: Read      [F]
7: Read      0[ ]
*Main> stepRun xor "0#1"
0: Read      [0]#1
1: left0     [#]1
2: xor0      #[1]
3: back      [#]T
4: back      [ ]#T
5: Read      [#]T
6: Read      [T]
7: Read      1[ ]
*Main> stepRun xor "10101#10011"
0: Read      [1]0101#10011
1: left1     [0]101#10011
6: xor1      0101#[1]0011
7: back      0101[#]F0011
13: Read     [0]101#F0011
14: left0     [1]01#F0011
18: xor0      101#[F]0011
19: xor0      101#F[0]011
20: back      101#[F]F011
26: Read     [1]01#FF011
32: xor1      01#FF[0]11
33: back      01#F[F]T11
39: Read     [0]1#FFT11
45: xor0      1#FFT[1]1
52: Read     [1]#FFTT1
58: xor1      #FFTT[1]
65: Read     [#]FFTTF
66: Read     [F]FTTF
67: Read     0[F]TTF
68: Read     00[T]TF
71: Read     00110[ ]
*Main>
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