

Ulam's Conjecture,

Stanislaw Ulam conjectured that all positive integer numbers when treated in a special way converge to 1. If the number is odd, it is multiplied by 3 and 1 is added. If it is even it is merely divided by 2.

To run program, key in n, press D.

Examples,

n=7 22
11
34
17
52
26
13
40
20
10
5
16
8
4
2
1

16=iteration count

n=9 28
14
7
22
11
34
17
52
26
13
40
20
10
5
16
8
4
2
1

19=iteration count

080 f LBL D 31 25 14
081 DSP 0 23 00
082 STO 1 33 01
083 0 00
084 STO 0 33 00
085 f LBL 5 31 25 05
086 1 01
087 RCL 1 34 01
088 g X=Y? 32 51
089 GTO 6 22 06
090 2 02
091 ÷ 81
092 g FRC 32 83
093 f X=0? 31 51
094 GTO 7 22 07
095 RCL 1 34 01

096 3 03
097 x 71
098 1 01
099 + 61
100 GTO 8 22 08
101 f LBL 7 31 25 07
102 h LST x 35 82
103 f LBL 8 31 25 08
104 h PSE 35 72
105 STO 1 33 01
106 1 01
107 STO+0 33 61 00
108 GTO 5 22 05
109 f LBL 6 31 25 06
110 RCL 0 34 00
111 h RTN 35 22