HHC 2013 RPN Programming Contest
September 21-22, 2013, Fort Collins, Colorado

Problem Description: All fractions written in octal (base 8) notation may be expressed exactly in decimal notation. For example, 0.75 in octal is 0.953125 in decimal. Specifically, a numeral requiring N octal digits to the right of the octal point may always be written as a decimal number with no more than 3N digits to the right of the point. The reverse is not always true.

Input: Each test case will consist of a value in octal between 0 and 1, inclusive.

Output: Display the base-10 decimal equivalent to the limits of your machine.

Sample Cases:
(A) 0.5 R/S should return 0.625.
(B) 0.75 R/S should return 0.953125.

Machines Eligible: This contest is open to any and all RPN machines: 15c, 15c+, 15c LE, 34S, 41CL, 42S, 67, 65, etc. RPL users are welcome to try the problem, but this is for RPN machines only.

The winner will be the program that a) returns correct answers, b) has the shortest number of steps x speed in seconds, or c) if the speed is in the judge's sole opinion, nearly identical, the shortest routine.

Rules: (aka the fine print)
1) The decision of the judge is FINAL. No appeals are allowed to anyone or anything.
2) The purpose of this contest is to have fun and learn and at least two contestants must submit an entry.
3) The speed results for all entries will be "normed" by counting the ticks for a loop. This loop program object will be loaded into YOUR machine by the judge.
4) No custom built ROM or machine code can be built and used for this problem. Any already existing functionality in the machine is ok.
5) You must submit a machine with your program already keyed in to the judge AS WELL as a legible listing of your program with your name on the listing AND the machine. Machines with no names that are given to the judge are assumed to be gifts to the judge. Thank you!
6) Submission must be made by the end of the contest (Time is TBA).
7) Assume the program will start running with step 001 and/or a R/S.
8) By submitting a program, you agree to allow it to be shared with the community.
9) This is a contest between individuals, not teams. One submittal <> one person.
10) You may not access the internet for any help in any fashion. Do not cheat in any way. Do not check the HP Museum Forum either.
11) You must be present to win.
12) If a point is unclear, ask immediately. No excuses for ignorance. Clarifications will be shared with the entire group during the conference.
13) Assume default machine settings. Your program must stop with the default settings in place.
14) Winner will be the program with the fastest times over the test cases giving correct results. If in the judge's sole discretion, two entries are "about the same speed," the winner will be the shortest routine. In case of a tie, the most elegant solution (according to the judge) wins.
15) The purpose of this contest is to learn and have fun. Happy Programming.