

question about the 'loves' algorithm

Source: <http://sci.tech-archive.net/Archive/sci.math/2006-09/msg05503.html>

- *From:* Jeroen <no_mail@xxxxxxxxxx>
 - *Date:* Wed, 27 Sep 2006 16:01:15 +0200
-

Hi all,

I have a somewhat practical and maybe silly question about the 'loves' algorithm. Let me explain first what the algorithm is. Suppose your name is John, and you like a girl named Jane. You can calculate the chance that a relationship would work (but don't take the outcome too seriously). For each character in the word 'loves', count the total number of occurrences in both names 'John' and 'Jane' (you can also take full names...). Then start adding subsequent digits until a 2 digit number is obtained, which is the outcome. So we have:

John L O V E S Jane

start 0 1 0 1 0 (only 1 'o' and 1 'e' in both names)

step 1 1 1 1 1

step 2 2 2 2

step 3 4 4 -> 44 % success rate for a relationship

For some combinations of names, the number of digits seems to grow infinitely. My own name with that of a girl I happen to like grows to more than 1e6 digits in 66 iterations.

The question is: is there some way of determining that the number of digits will grow infinitely, based on the starting digits? Or will every combination of names eventually break down to a 2 digit number? I have no idea :-)

Jeroen

.