TRADURRE IN ITALIANO IL TESTO SEGUENTE:

Three Years Of Computing
Final Report On The Palindrome Quest
by John Walker

Pick a number. Reverse its digits and add the resulting number to the original number. If the result isn't a palindrome, repeat the process. Do all numbers in base 10 eventually become palindromes through this process? Nobody knows.

For example, start with 87. Applying this process, we obtain:

87 + 78 = 165
165 + 561 = 726
726 + 627 = 1353
1353 + 3531 = 4884, a palindrome

For the process to end, the sum must be a palindrome; and this happens only if there are no carries in the addition.

Whether all numbers eventually become palindromic under this process is unproved, but all numbers less than 10,000 have been tested. Every one becomes a palindrome in a relatively small number of steps (of the 900 3-digit numbers, 90 are palindromes to start with and 735 of the remainder take less than 5 reversals and additions to yield a palindrome). Except, that is, for 196. This number had been carried through 50,000 reversals and additions by P. C. Leyland, yielding a number of more than 26,000 digits without producing a palindrome. Later, P. Anderton continued the process up to 70,928 digits without encountering a palindrome.

On August 12, 1987, I put my Sun 3/260 to work on this problem. A program, pquest.c, performs the reversal and addition of arbitrary precision numbers and checks for a palindrome after each step.

For almost three years the process of reversal and addition continued. Last night, at five minutes before midnight, the program printed the message:

```
Stop point reached on pass 2415836.
Number contains 1000000 digits.
```

and exited. After 2,415,836 reversals and additions, 196 had grown to a number of 1,000,000 digits without ever yielding a palindrome. Does it ever produce one? Still, nobody knows. From a probabilistic standpoint, as a number grows to enormous size the likelihood of producing a palindrome on the next step decreases since the odds of a digit pair summing to 10 or more approach certainty in very large numbers. But with infinite repetition of this process...perhaps.

I'm not planning to publish this result because after 3 years of enduring the vicissitudes of a Motorola 68020 microprocessor, I wouldn't be confident in the results without re-running them for verification and I'm not about to re-up for another 3 years. Besides, if I wait 2 years, I'll probably have a computer on my desk that can do it in 6 months–it's just like the phenomenon of slowboat interstellar travel: no matter when you leave, by the time you get there the destination is already populated by the descendants of people who left after you and traveled in faster ships built with later technology.

TRADURRE IN INGLESE LE FRASI SEGUENTI:

1. La somma di due palindromi può non essere un palindromo.

2. La soluzione del problema in base dieci non è nota.

3. Il primo calcolatore ha calcolato la successione di numeri fino a raggiungere un milione di cifre.

4. Un calcolatore più moderno impiegherebbe molto meno tempo.

5. Ti fideresti di un risultato matematico derivato da un lungo calcolo eseguito da un calcolatore?