

- 10. John Riordan, "An Introduction to Combinatorial Analysis," New York, 1958.
- 11. J. Schröder, Darstellung der Binomialkoeffizienten durch grösste Ganze, Mitteil. Math. Ges. Hamburg, 6(1928), 375-378. Cf. Jahrbuch über die Fortschritte der Mathematik, 54(1928), 181.

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LETTER TO THE EDITOR

B.G. BAUMGART
Glencoe, Illinois

Dear Sir:

In the article "On the Periodicity of the Last Digits of the Fibonacci Numbers" Vol. 1 No. 4, it was proved that for $n \geq 3$ the n -th digit (from the right) had a period of $1.5 \cdot 10^n$ thus accounting for the observation made at the University of Alaska on an IBM 1620; that the last Fibonacci digit cycles every 60 numbers; the second to last digit, every 300 numbers; the third, every 1500; the fourth, 15000; the fifth, 150000.

I, too, have observed the periodicity of the last Fibonacci digits on an IBM 709 at Northwestern University (before discovering the Fibonacci Quarterly). However, I also considered the so called:

Tribonacci Series

1, 1, 1, 3, 5, 9, 17, 31, 57, 105, 193, 355, 653, 1201, 2209, 4063, 7473...

and found that its last digit repeats every 31 numbers, its second to last digit repeats every 620 numbers and its third to last digit repeats every 6200 numbers;

Tetranacci Series

1, 1, 1, 1, 4, 7, 13, 25, 49, 94, 181, 349, 673, 1297, 2500, 4819, 9289...

and found that the last digit repeats every 1560 numbers as does the second to the last digit. That is the period of the last and the second to the last is the same. The period of the third to last digit is 7800 and I believe the period of the fourth to last digit is also 7800 but I can not say for sure with my present results (I got all my data from one program which truncated at the fourth digit, at the time I was only thinking about the very last digit. However, it will be easy to find out and I shall do so when I get a chance. Actually, this sort of problem is a programmer's dream, because one may lose the most significant part of his calculations with impunity.)

Pentanacci Series

1, 1, 1, 1, 1, 5, 9, 17, 33, 65, 129, 253, 497, 977, 1921, 3777, 7425, 14597...

(Continued on page 302.)