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the last digit repeats on a period of 781, the second to last digit has a period of 3900, and the

Hexanacci Series

1, 1, 1, 1, 1, 1, 6, 11, 21, 41, 81, 161, 321, 636, 1261, 2501, 4961, 9841...

the last digit as can easily be seen above repeats on a period of 7, the sequence being:

6111111611111161111116111111 6...

the second to last digit however has the somewhat larger period of 7280.

Finally, for sometime, I have wanted to apply these observations on the periodicity of the last digits to some other Fibonacci problems. So far, I have only the somewhat lame observation that the Prime-Fibonacci-Number Density (that is the ratio between the number of Fibonacci numbers which are prime below a given number n and that number n) is less than $4/15 \int_2^x dx/\ln x$. This observation follows from the theorem that if a Fibonacci number is prime, then its subscript is prime. Thus if all Fibonacci numbers with prime subscripts were prime the density would be Euler's famous expression

$$\pi(n) = \int_2^x dx/\ln x .$$

However, a good number of Fibonacci Numbers are not prime but do have prime subscripts, some of these numbers can now be excluded from the prime-density considerations because every prime greater than 3 must end in a 1, 3, 7, or 9 and can be expressed as $6x \pm 1$. Now consider the sequence of the last digit of the Fibonacci series:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1	2	3	5	8	3	1	4	5	9	4	3	7	0	7	7	4	1	5
						*				*		*				*		*	
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
6	1	7	8	5	3	8	1	9	0	9	9	8	7	5	2	7	9	6	5
		*						*		*						*			
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
1	6	7	3	0	3	3	6	9	5	4	9	3	2	5	7	2	9	1	0
*		*				*		*				*						*	

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