

# A NUMBER PROBLEM

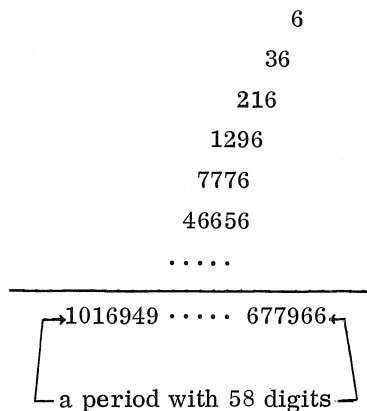
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The last digit of one number is 6. Take away this digit and put it in front of a given number.

Thus a new number can be formed which will be 6 times bigger than the original one.

What smallest of all possible numbers satisfies this condition?

### Simple Solution



The number to be found is:

1016949152542372881355932203389830508474576271186440677966 .

Find this number in another way using the Fibonacci terms.

Remark. 2, 8, 34, 144, ..., etc. are third, sixth, ninth, twelfth, ... (general:  $F_{3n}$ , where  $n = 1, 2, 3, 4, \dots$ ), etc. terms of Fibonacci sequence 1, 1, 2, 3, 5, ... .

The solution by using the Fibonacci numbers is given on the following page.

[Continued on page 198. ]