

Pure Math and No Magic!

Check if the following hypothesis is correct:

“Current Mathematics does not have the tools to prove it.”

Let's imagine, that we have an algorithm, which consumes an integer.

On each iteration, this number may be transformed:

- 1. If the number is even, then divide it by 2*
- 2. If the number is odd, then multiply it by 3 and add 1 to the result*

You can assume, that the algorithm will end up at number 1.

Let's call number of iterations to get from any given number to 1 $f(n)$. For given N we need to find K , for which $f(K)$ is biggest among $f(n)$ where $1 < n < 2^N$, as well as the value of $f(K)$. The task is to solve the problem above for biggest N possible (but no bigger than 10^{307}), taking into consideration time limits of the event 😊