

Hi all,

Software Defined Radio

Yuyi Chang

Weekly Challenge #5 Review

Prefix Free Code

Laurence Liu

Weekly Challenge #6

Chenzhang Hu

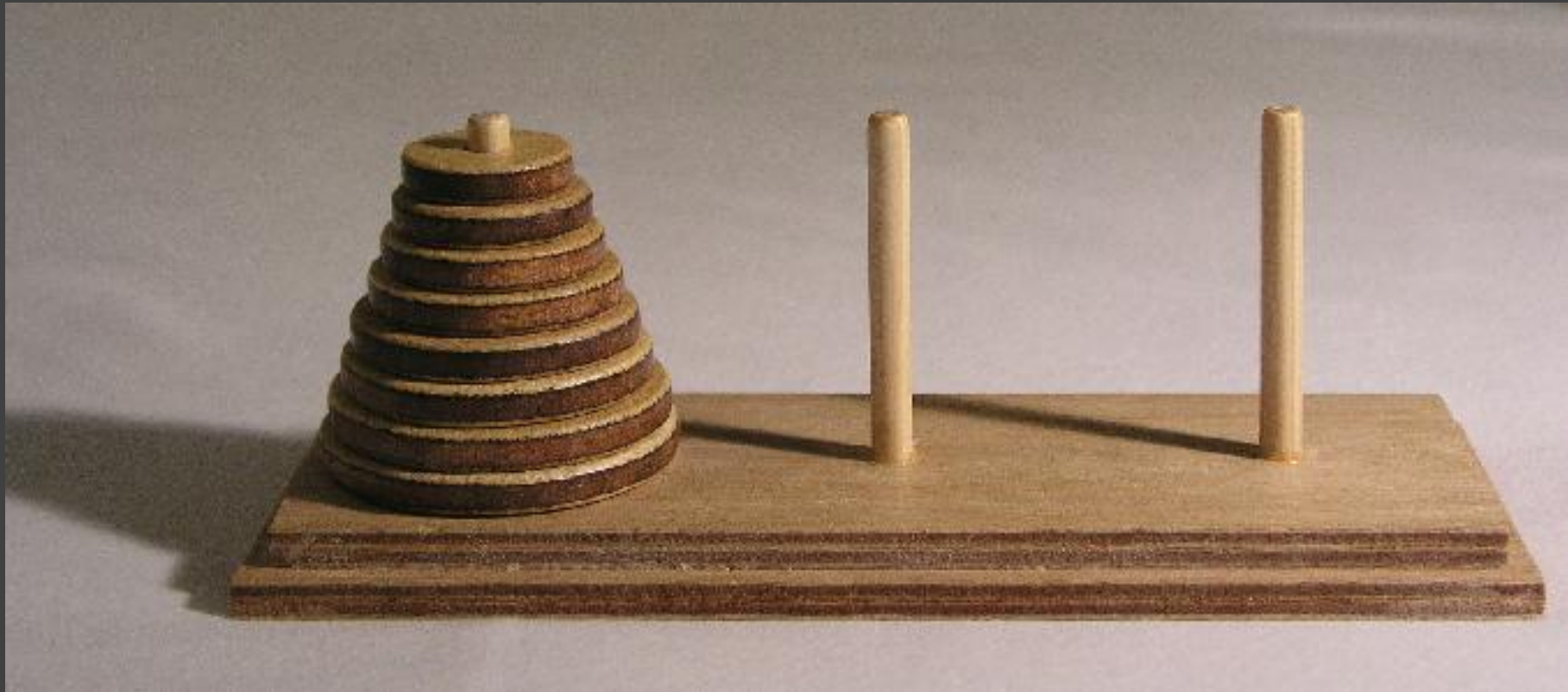


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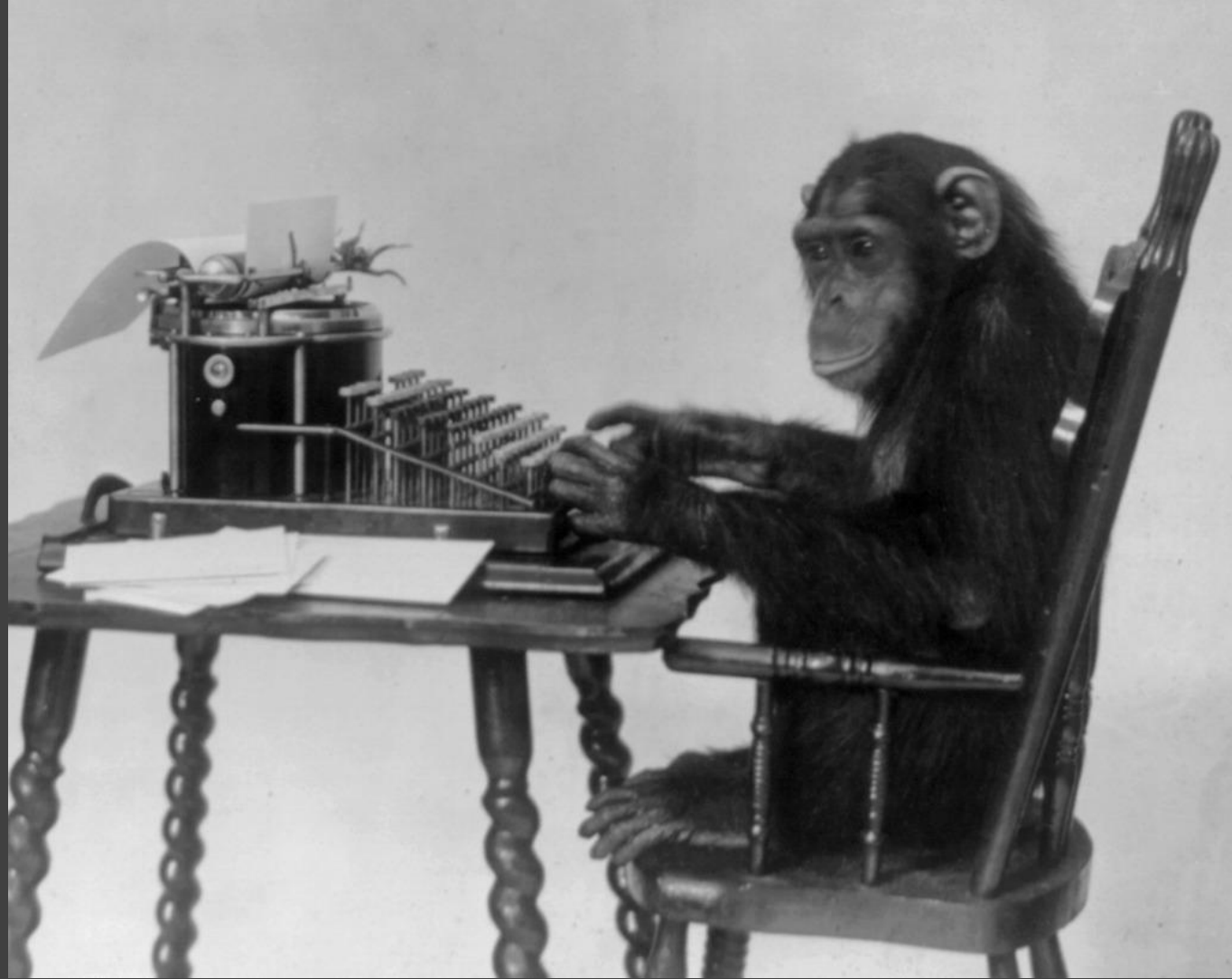
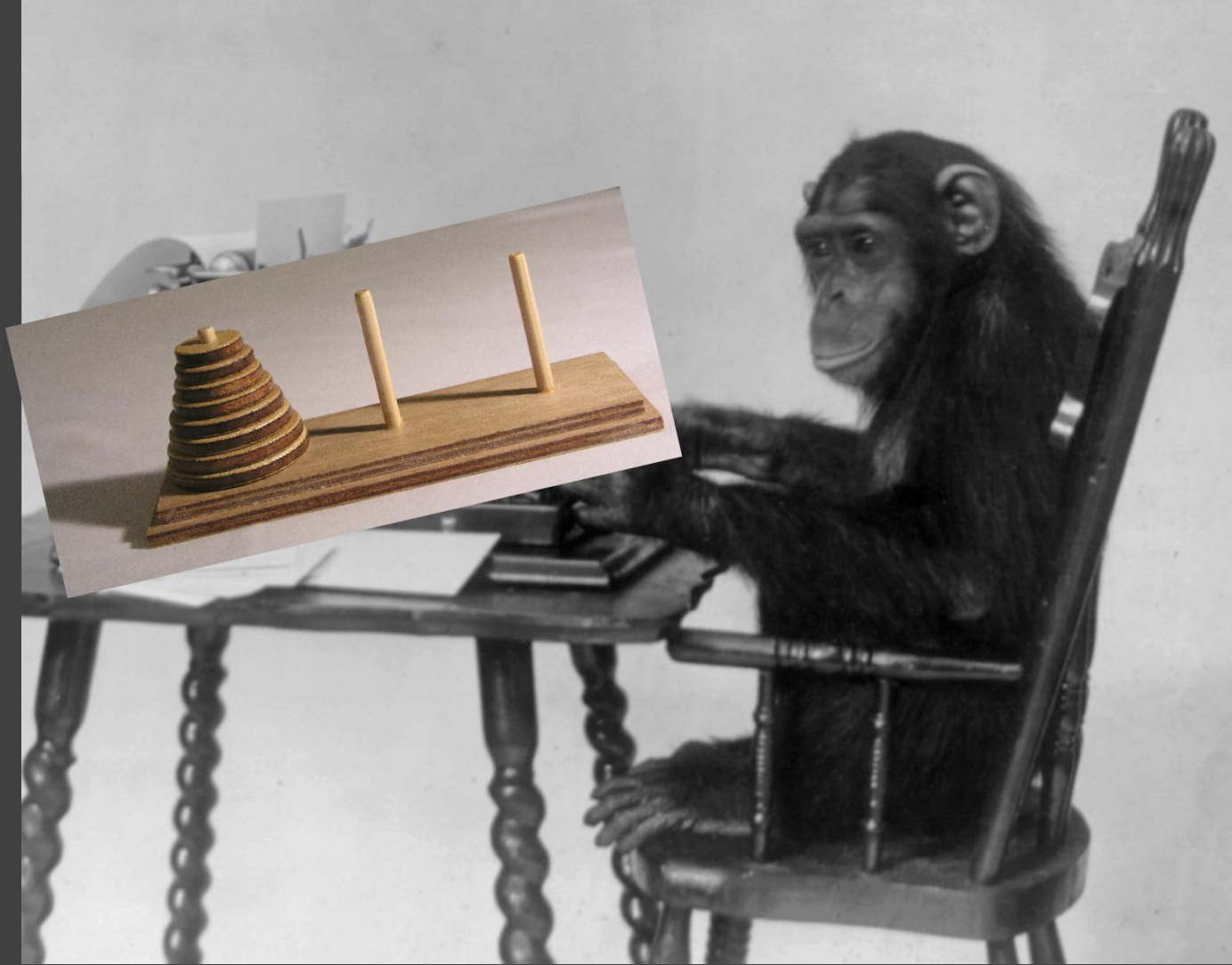
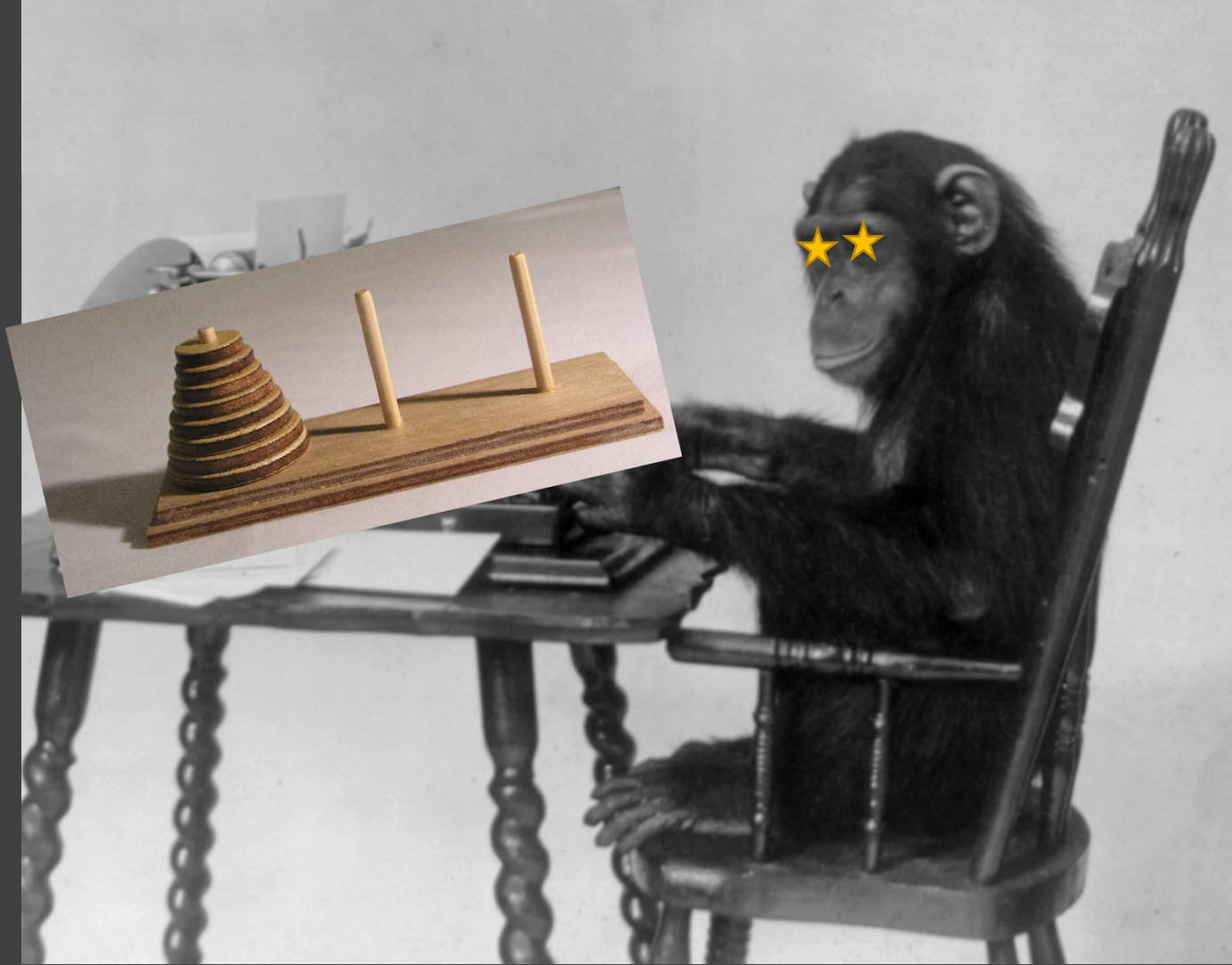


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Infinite Hanoi Theorem

A chimpanzee is playing The Tower of Hanoi with 2 disks. In each step, he always chooses a legal move randomly.

Infinite Hanoi Theorem

A chimpanzee is playing The Tower of Hanoi with 2 disks. In each step, he always chooses a legal move randomly. Please calculate the probability he can win the game after N steps.

Infinite Hanoi Theorem

Given $N < 1000$, let the answer be P

(a) Calculate the float-point number P ;

(b) Calculate the accurate value of:

$$(P * 3^N) \% (10^9 + 7)$$

(c) If $N < 10^{18}$, can you still solve (b)?

Infinite Hanoi Theorem

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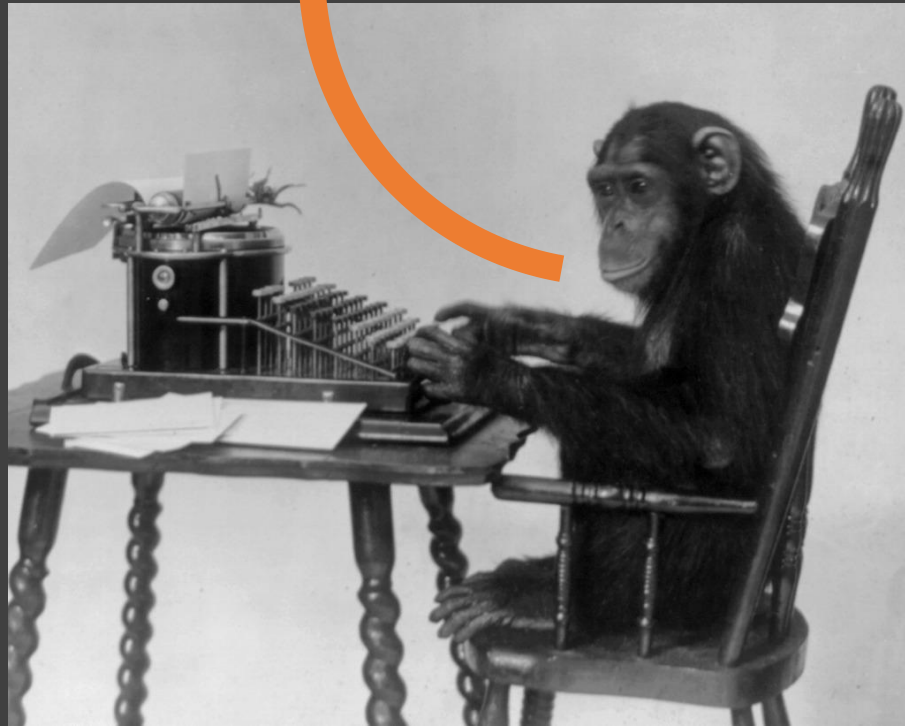
~~(a) Calculate the float-point number P ;~~

(b) Calculate the accurate value of:

$$(P * 3^N) \% (10^9 + 7)$$

(c) If $N < 10^{18}$, can you still solve (b)?

Let's have a try!



Submission: <http://bit.do/acm0407>