Generating Randomness

1分

So how do we *generate* the random numbers we're going to use in our simulations? Most of numerical methods will use *pseudo* random number generators (https://en.wikipedia.org/wiki/Pseudorandom_number_generator) (PRNGs). One form of these is the linear congruential generator (https://en.wikipedia.org/wiki/Linear_congruential_generator) or LCG. This has a simple form, starting with an integer seed x_0 .

$$x_n = (ax_{n-1} + c) \bmod m$$

where a, c, and m are given (for examples, see here (https://en.wikipedia.org/wiki/Linear_congruential_generator#Parameters_in_common_use)).

In this case, consider $a = 6$, $c = 4$, and $m = 5$. What is the period or number of elements that can be generated without repeating?

选项*

- 9
- 32
- 5
- 3
- 0

参考答案: '5'.