MARATONA DE PROGRAMAÇÃO
InterFatecs

Problem D

Superstition

Source file: superstition.{ c | cpp | java }
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Vinicius is an Information Systems student at FACOM/UFMS and will take an exam in "Algorithms and Programming I"for the first time next week. The professor warned everyone in advance that the exam will be composed of N questions and each question will have two answer alternatives, True or False. As Vinicius is very superstitious, he doesn't answer two consecutive questions with the alternative 'True'. He believes that there is a low probability that the professor would stick with 'True' as the correct answer for two consecutive questions. Therefore, the technique developed by him to answer the N questions can be summarized as follows: for all i $(1 \leq i \leq N)$, if Vinicius answers the question i with True, he will certainly answer the question $i + 1$, if any, with False. This way, he expects to answer a larger number of questions and get a good grade in the discipline.

While he was preparing himself for the exam, Vinicius was very curious to know how many different ways he could answer the exam using the elaborated method. To do so, he wants to create a program that will help him determine the number of possible ways to answer the N exam questions following his technique. For example, if N=3, there are 5 possible ways to answer the exam questions: FFF, FFV, FVF, VFF and VFV (note that FVV, VVF, and VVV are not valid answers because they do not follow the method developed by him). Can you help him with this task?

Input

The input is composed of a line with an integer N $(1 \leq N \leq 10^5)$, representing the number of questions in the exam.

Output

As the number of possible ways to answer the N exam questions can be great, print only the reminder of the division of this number by $10^9 + 7$. Place a line break after the value.

Example of Input 1	Example of Output 1
3	5

Example of Input 2	Example of Output 2
10	144

Example of Input 3	Example of Output 3
514	168686355

Example of Input 4	Example of Output 4
2791	344675565