

0110SS

Dor is IWGolym student so he has to count in how many ways he can make N digit numbers that is formed by ones and zeroes. But zeroes can not be next to each other. Help to him in how many differnt numbers can he make .

ex:3

101,010,111,110,011

Input

A number N $N \leq 70$

Output

Answer for the problem

Example

Input :

2

Output :

3