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Coding Arena

<C*deVita/>
the TCS Coding Contest

Time Left

04 **54** **32**
hr   min   sec

A   B   C   D   E   F   G   H

Rules & Regulations

Launch Code Editor

Please note the constraints in this problem have been updated. Regret inconvenience.

Problem : The Vita Sum

Statement

Tom the cat is brushing up his Math skills. He has a bag containing N balls of different colors. Now Tom can randomly pick any even number of balls from the bag. Tom wants to find out the sum of all such combinations of balls that he can pull out from the bag. He can pull out at max K balls in one pick.

Input Format:

First line contains two space separated numbers N and K

Output Format:

The output is the sum of all the combinations of balls he can pull out modulo 10^9+7 i.e. (1000000007)

Constraints:

1. $0<=N,k<=10^{14}$
2. $N >= k$

Sample Input and Output

SNo.	Input	Output	Explaination
1	4 4	8	We need $^4C_0 + ^4C_2 + ^4C_4 = 1+6+1=8$
2	8 3	29	We need $^8C_0 + ^8C_2 = 1+28=29$

Note:

Please do not use package and namespace in your code. For object oriented languages your code should be written in one class.

Note:

Participants submitting solutions in C language should not use functions from <conio.h> / <process.h> as these files do not exist in gcc

Note:

For C and C++, return type of main() function should be int.

Submit Answer

☐ I , **ABHISHEK TATIKELLA** confirm that the answer submitted is my own.

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