



E. PIZZA

Alex has a pizza that he wants to share with his friends. The pizza is in the shape of a convex polygon with N sides. He decides to make cuts along the diagonals of the polygon.

After all the cuts have been made, count the number of pizza slices there are in total. As the answer may be large, please print it modulo 987654321.

Note that it is guaranteed that no three diagonals of the polygon intersect at a point.

INPUT

The first and only line contains the positive integer N . ($3 \leq N \leq 10^{18}$)

OUTPUT

Print the answer, modulo 987654321.

Sample Input	Sample Output
4	4