Problem C. chatGPT and Fibonacci Numbers

Time limit 2000 ms
Mem limit 262144 kB

Recently, there has been a groundbreaking discovery made by chatGPT, which is causing quite a stir in the scientific community. chatGPT claims that every Fibonacci number can be expressed as the sum of three Fibonacci numbers, which may or may not be distinct.

Before delving into the problem at hand, let us recall the method used for calculating Fibonacci numbers. $F_0 = 0$, $F_1 = 1$, and all the next numbers are $F_i = F_{i-2} + F_{i-1}$.

So, Fibonacci numbers make a sequence of numbers: 0, 1, 1, 2, 3, 5, 8, 13, ...

If you haven't run away from the PC in fear, you have to help chatGPT. Your task is to determine whether a given Fibonacci number n can be divided into three Fibonacci numbers, which may or may not be distinct. If it is possible, you must provide a solution; otherwise, you must say that it is impossible.

Input

The input contains of a single integer n ($0 \le n < 10^9$) — the number that should be represented by the rules described above. It is guaranteed that n is a Fibonacci number.

Output

Output three required numbers: a, b and c. If there is no answer for the test you have to print "`I'm too stupid to solve this problem`" without the quotes.

If there are multiple answers, print any of them.

Sample 1

Input	Output
3	1 1 1

Sample 2

Input	Output
13	2 3 8