

Introduction

One of the most famous series of numbers, besides 4-8-15-16-23-42, is the Fibonacci series. It starts with two ones and the next element is always calculated as the sum of the previous two. That is, the first numbers in the Fibonacci series are:

1 1 2 3 5 8 13 21...

Tribonacci series is based on the previous one, but instead of starting with two ones and summing the two previous numbers, it starts and sums three:

1 1 1 3 5 9 17 31...

As you can see, this can be generalized.

Your task is to write a program that is capable of writing any of these n-ibonacci sequences.

Input

The input are two numbers. The first of them indicates the value for *n*, that indicates the amount of ones at the beginning and how many of the previous elements need to be summed. If n is 2, you will get the Fibonacci series, if n is 3 Tribonacci... The second number is the amount of elements of the series the program must output.

4 9

Output

The first elements of the n-ibonacci series for the provided values on the input. 1 1 1 1 4 7 13 25 49