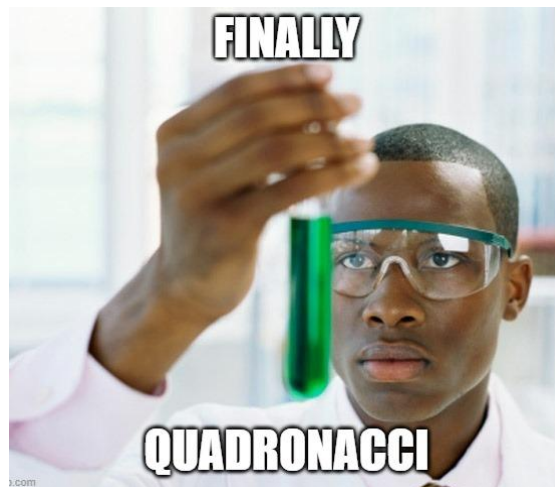


# Quadronacci Sequence

Time Limit: 1 s

Memory Limit: 256 MB



## Description

In high school, Narto learned about the Fibonacci sequence. But because Narto is now in college, he wants to learn new things. Therefore, he began to deepen his knowledge related to the series. One day, he discovered a series similar to the Fibonacci sequence and Narto named it the Quadronacci Sequence. If an element in the Fibonacci series is the sum of the previous two elements, then in the Quadronacci series the way to determine it is by adding up the previous 4 elements. In Quadronacci Sequence, the first 4 elements are **{0, 0, 0, 1}**. Since you are a prodigy programmer, help Narto to make a program of his Quadronacci Sequence!

## Input

- The first line is **N** which represents the element index is up to.

## Output

- Print the Quadronacci sequence from index **1 - N**.

## Readme

- Your code **Must** use **Recursion** to generate the Quadronacci sequence.

## Constraints

$$1 \leq N \leq 30$$

## Examples

**#1**

Input
4
Output
0, 0, 0, 1

**#2**

Input
10
Output
0, 0, 0, 1, 1, 2, 4, 8, 15, 29

**#3**

Input
20
Output
0, 0, 0, 1, 1, 2, 4, 8, 15, 29, 56, 108, 208, 401, 773, 1490, 2872, 5536, 10671, 20569