Is Fibo

HackerRank

You are given an integer, N. Write a program to determine if N is an element of the *Fibonacci sequence*.

The first few elements of the Fibonacci sequence are $0, 1, 1, 2, 3, 5, 8, 13, \cdots$. A Fibonacci sequence is one where every element is a sum of the previous two elements in the sequence. The first two elements are 0 and 1.

Formally:

$$egin{aligned} fib_0 &= 0\ fib_1 &= 1\ dots\ fib_n &= fib_{n-1} + fib_{n-2} orall n > 1 \end{aligned}$$

Function Description

Complete the *isFibo* function in the editor below.

isFibo has the following parameters: - *int n:* the number to check

Returns

- *string:* either IsFibo Or IsNotFibo

Input Format

The first line contains t, number of test cases. t lines follow. Each line contains an integer n.

Constraints

 $egin{array}{l} 1 \leq t \leq 10^5 \ 1 \leq n \leq 10^{10} \end{array}$

Sample Input

STDIN	Function
3	t = 3
5	n = 5
7	n = 7
8	n = 8

Sample Output

IsFibo IsNotFibo IsFibo

Explanation

5 is a Fibonacci number given by ${f fib}_5=3+2$

 ${\bf 7}$ is not a Fibonacci number

8 is a Fibonacci number given by ${f fib}_6=5+3$

Time Limit

The time limit for this challenge is given here.