

# Is Fibo



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, ...**. 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:

$$\begin{aligned} fib_0 &= 0 \\ fib_1 &= 1 \\ &\vdots \\ fib_n &= fib_{n-1} + fib_{n-2} \forall n > 1 \end{aligned}$$

## Input Format

The first line contains  $T$ , number of test cases.  
 $T$  lines follow. Each line contains an integer  $N$ .

## Output Format

Display **IsFibo** if  $N$  is a Fibonacci number and **IsNotFibo** if it is not. The output for each test case should be displayed in a new line.

## Constraints

$$\begin{aligned} 1 &\leq T \leq 10^5 \\ 1 &\leq N \leq 10^{10} \end{aligned}$$

## Sample Input

```
3
5
7
8
```

## Sample Output

```
IsFibo
IsNotFibo
IsFibo
```

## Explanation

5 is a Fibonacci number given by  $fib_5 = 3 + 2$   
7 is not a Fibonacci number  
8 is a Fibonacci number given by  $fib_6 = 5 + 3$

## Time Limit

Time limit for this challenge is given [here](#).