import java.io.\*;

import java.util.\*;

import java.text.\*;

import java.math.\*;

import java.util.regex.\*;

public class Solution {

public static void main(String[] args) {

/\* Enter your code here. \*/

int result=0;

int number=0;

Scanner in = new Scanner(System.in);

int n = in.nextInt();

for(int i=0;i<n;i++)

{

number=in.nextInt();

if (number < 2 || (number > 2 && (number&1) == 0))

{

System.out.println("Not prime");

}

else

{

boolean isPrime=true;

for(int j=2;j<(int)Math.sqrt(number);j++)

{

if(number%j==0)

{

isPrime=false;

break;

}

}

System.out.println(isPrime?"Prime":"Not prime");

}

}

}

}