import java.util.\*;

public class Main

{

public static void main(String args[])

{

Scanner scan = new Scanner(System.in);

System.out.print("Enter any number you want to check: ");

//reading an integer from the user

int inputNumber = scan.nextInt();

//if any of the following condition returns true, the number id not bouncy

if (isIncreasing(inputNumber) || isDecreasing(inputNumber) || inputNumber < 101)

//prints if the number is not bouncy

System.out.println(inputNumber+" not a bouncy number.");

else

//prints if the number is bouncy

System.out.println(inputNumber+" is a bouncy number.");

}

//function that checks if the number is an increasing number or not

public static boolean isIncreasing(int inputNumber)

{

//converts the number into string

String str = Integer.toString(inputNumber);

char digit;

//flag set to true

boolean flag = true;

//iterates over the string up to length-1

for(int i=0;i < str.length()-1;i++)

{

digit = str.charAt(i);

//if any digit is greater than check next digit, it will not check further

if(digit > str.charAt(i+1))

{

//flag set to false if the condition returns true

flag = false;

break;

}

}

return flag;

}

//function that checks if the number is a decreasing number or not

public static boolean isDecreasing(int inputNumber)

{

//converts the number into string

String str = Integer.toString(inputNumber);

char digit;

//flag set to true

boolean flag = true;

//iterates over the string up to length-1

for(int i=0;i < str.length()-1;i++)

{

digit = str.charAt(i);

//if any digit is less than the next digit, it will not check further

if(digit < str.charAt(i+1))

{

//flag set to false if the condition returns true

flag = false;

break;

}

}

return flag;

}

}