A *squared encoding* in a simple encoding algorithm that can be used to encrypt messages of moderate importance. To encrypt a message consisting of lowercase English letters, the following steps should be taken:

1. consider message characters one by one;
2. each letter is assigned to a number: 'a' to 1, 'b' to 2, and so on, with 'y' assigned to 25and 'z' assigned to 0;
3. take a value assigned to the character, calculate its square modulo 26, and add the letter assigned to the obtained result to the answer.

Given a message, your task is to encode it using the *squared encoding* algorithm.

**Example**

For message = "hello", the output should be  
decode2(message) = "lynnq".

Here's why:

* 'h' -> 82 % 26 = 64 % 26 = 12 -> 'l';
* 'e' -> 52 % 26 = 25 % 26 = 25 -> 'y';
* 'l' -> 122 % 26 = 144 % 26 = 14 -> 'n';
* 'o' -> 152 % 26 = 225 % 26 = 17 -> 'q'.

**Input/Output**

* **[time limit] 3000ms (cs)**
* **[input] string message**

A string consisting of lowercase English letters.

*Constraints:*  
1 ≤ message.length ≤ 100.

* **[output] string**

*Squared encoded* message.

<https://codefights.com/challenge/6FcoYgXWmxETjuuaj?utm_source=featuredChallenge&utm_medium=email&utm_campaign=email_notification>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace ConsoleApplication1

{

class Program

{

//static string decode2(string message)

//{

// string alfab = "abcdefghijklmnopqrstuvwxyz";

// string ans ="";

// foreach (char ch in message)

// {

// int caracter = (ch - 'a' + 1);

// if (ch == 'z')

// {

// caracter = 0;

// }

// int cuad = caracter \* caracter;

// if (caracter > 0)

// {

// ans += alfab[(cuad % 26) - 1];

// }

// else

// {

// ans += alfab[alfab.Length-1];

// }

// }

// return ans;

//}

static string decode2(string message)

{

//string alfab = "abcdefghijklmnopqrstuvwxyz";

string ans = "";

foreach (char ch in message)

{

int c = (ch - 'a' + 1);

int cuad = c \* c;

if (ch == 'z')

ans += "z";

else

//ans += alfab[(cuad % 26) - 1];

ans += (char)((cuad % 26) + 'a'-1);

}

return ans;

}

static void Main(string[] args)

{

//char ch = 'a';

//Console.WriteLine(ch - 'a' + 1);

//string message = "hello";

//string message = "zulu";

string message = "abc";

Console.WriteLine(decode2(message));

Console.ReadLine();

}

}

}

//-------------MI SOLUCION MAS COMPACTA------------------------

static string decode2(string message)

{

string ans = "";

foreach (char ch in message)

{

int c = (ch - 'a' + 1);

ans += ch == 'z' ? 'z' : (char)(((c \* c) % 26) + 'a' - 1);

}

return ans;

}