## Problem 2 – Odd and Even Jumps

We are given an input string, e.g. "Software University". We take its odd and even letters, turned into lowercase:

* odd letters 🡪 "sfwruiest"
* even letters 🡪 "otaenvriy"

We are also given two numbers: **oddJump** and **evenJump**. We pass through the **odd letters** from left to right and we **sum their ASCII codes** and aggregate the sum to the **result** (initially starting form 0). Through a step of **oddJump** we **multiply** the current result by the ASCII code of the current letter instead of adding it to the result. Finally we print the result as **hexadecimal** number. We do the same for the even letters with a step of **evenJump**. For our example, let's assume **oddJump** = **3** and **evenJump** = **2**. The calculations are performed as follows:

* odd result = ( ( (+ 115 's' + 102 'f') \* 119 'w' + 114 'r' + 117 'u' ) \* 105 'i' + 101 'e' + 115 's' ) \* 116 't' = 317362776 = **12EA9258** (hex)
* even result = ( ( + 111 'o' \* 116 't' + 97 'a' ) \* 101 'e' + 110 'n' ) \* 118 'v' + 114 'r' ) \* 105 'i' + 121 'y' = 16235657461 = **3C7B878F5** (hex)

### Input

The input data should be read from the console. It consists of 3 lines:

* The first line holds the **input string**.
* The second line holds the number **oddJump**.
* The third line holds the number **evenJump**.

The input data will always be valid and in the format described. There is no need to check it explicitly.

### Output

The output should consist of 2 lines:

* The **odd result** in hexadecimal form in format: „**Odd: XXX**“.
* The **even result** in hexadecimal form in format: „**Even: XXX**“.

### Constraints

* The **input string** will consist of only Latin letters and spaces in the range [1…100].
* The numbers **oddJump** and **evenJump** will be integer in the range [1…100].
* The odd and even **results** will be in the range [0…7FFF FFFF FFFF FFFF].
* Allowed working time: 0.2 seconds. Allowed memory: 16 MB.

### Examples

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |
| Software University  3  2 | Odd: 12EA9258  Even: 3C7B878F5 | CSharp Exam SoftUni  7  11 | Odd: FBE2  Even: 37A |

using System;

using System.Collections.Generic;

using System.Linq;

using System.Numerics;

using System.Text;

using System.Text.RegularExpressions;

class SumOfElements02

{

static void Main()

{

string input = Console.ReadLine().ToLower();

input = string.Concat(input.Split(' '));

int odd = int.Parse(Console.ReadLine());

int even = int.Parse(Console.ReadLine());

string oddLetters = "";

string totalOdds = "";

string totalEvens = "";

string evenLetters = "";

long result = 0;

long result2 = 0;

string odds = "";

string evens = "";

for (int i = 0; i < input.Length; i++)

{

char current = input[i];

if (i % 2 == 0)

{

oddLetters += current;

totalOdds = oddLetters;

}

else

{

evenLetters += current;

totalEvens = evenLetters;

}

}

for (int j = 0; j < totalOdds.Length; j++)

{

char currentChar = totalOdds[j];

if (j== (odd-1) || ((j+1) % odd==0))

{

result \*= currentChar;

}

else

{

result += currentChar;

}

}

for (int k = 0; k < totalEvens.Length; k++)

{

char currentChar = totalEvens[k];

if (k == (even-1) || ((k+1)%even==0))

{

result2 \*= currentChar;

}

else

{

result2 += currentChar;

}

}

odds = result.ToString("X");

evens = result2.ToString("X");

Console.WriteLine("Odd: {0}",odds);

Console.WriteLine("Even: {0}", evens);

}

}