A.

Given an integer N, and N integers, find the sum of the N integers using recursion.

**Input**

Input will consist of an integer, N (1 <= N <= 103) in the first line. The next line contains N integers Xi (Xi <= |109|).

**Output**

Output will consist of 1 line: Value of sum.

|  |  |
| --- | --- |
| **Sample Input** | **Output of Sample Input** |
| 4  1 4 2 7 | 14 |
| 4  5 5 5 5 | 20 |

B.

**Problem Description**

In this problem, you need to convert a binary number into decimal using recursion.

**Input**

Input contains a string with 0s and 1s. The length of the string will be at most 63. The string represents a valid binary number.

**Output**

Output the corresponding decimal number.

|  |  |
| --- | --- |
| 10 | 2 |
| 101 | 5 |
| 11111 | 31 |

C.

Given integers A and B, print the value of GCD(A, B). GCD is greatest common divisor using recursion.

**Input**

Input will consist of two integers, A and B (-109 <= A, B <= 109) in one line. It will never be two zeroes.

**Output**

Output will consist of 1 line: Value of gcd.

|  |  |
| --- | --- |
| **Sample Input** | **Output of Sample Input** |
| 12 18 | 6 |
| 6 3 | 3 |

D.

**Problem Description**

In this problem, you are given a string and you have to determine whether the string is palindrome using recursion.

**Input**

Input file contains a single line of string (1<=Length of a String<2000).

**Output**

If the input string represent a palindrome then print “**Palindrome**”, otherwise print “**Not Palindrome”**.

|  |  |
| --- | --- |
| Uganda | Not Palindrome |
|  |  |
| ABBA | Palindrome |