

## Recursion

Write a program in MIPS assembly language to find the sum of absolute differences between consecutive elements in array using recursion. Your program should print on the console the computed value `compute(i, array)` where `i` is the index and `array` is the integer array defined. The array should be predefined in the data section and should not be a user input.

**NOTE:** You can assume there will be no overflow while computing the sum. Hence, accordingly set the values inside your array for your testing. For grading purposes, the values of array will be altered to check all cases.

For Example:

**.data**

**array: .word 5,4,3,2,1**

*Expected Output:*

**The computed result is 4**

*Calculation:*

$$(5- 4) + (4- 3) + (3- 2) + (2-1) = 4$$