

Computer Architecture

Homework Assignment 1

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The series sum S is given by

$$S(a, b, c, d) = \sum_{n=a}^b \sum_{m=c}^d (-1)^n (n-m)^2 .$$

Write a MIPS Assembly program that asks the user for the integer values of a , b , c and d , calculates the above series sum $S(a, b, c, d)$, and prints the result.

```
Mars Messages Run I/O
Numbers a, b, c, d:
Give a number: 1
Give a number: 2
Give a number: 3
Give a number: 4
The series sum is -8
-- program is finished running --
```

- Groups of one (1) or two (2) people.
- Hand in one (1) file (aXXXXXaYYYYY.asm) at the Tutoria Electronica. (Not needed for both members of the group to hand in a file. One suffices).
- Deadline: **14 March 2025, 21h00** (Lisbon time).
- Write your names (2) as a comment in the first line of the file.