**Practice session 6:**

Create a new Python file called sum.py and create a function called harmonic\_sum, which must calculate the value of the following series:

A picture containing text

Description automatically generated

For example, considering N = 6 and *α* = 2 you will obtain:

Diagram, schematic

Description automatically generated

In particular, the function must:

* have as mandatory parameters *N* and *α*, that are the maximum number to be considered for the series and the exponent to be used
* return the result of the sum of all the fractions to the calling instruction

Test the program calling several times the function harmonic\_sum with different values.

**ANS:**

**def harmonic\_sum(N, a):**

**total = 0**

**for n in range(1, N+1):**

**total = total + 1/n\*\*a**

**return total**