Quotient Sum

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	1024 megabytes

You are given a sequence $A = (A_1, A_2, \ldots, A_N)$ consisting of N distinct positive integers. Consider rearranging the elements of A to obtain a sequence $B = (B_1, B_2, \ldots, B_N)$. Find the minimum value of the following expression:

$$\left\lfloor \frac{B_2}{B_1} \right\rfloor + \left\lfloor \frac{B_3}{B_2} \right\rfloor + \cdots + \left\lfloor \frac{B_N}{B_{N-1}} \right\rfloor + \left\lfloor \frac{B_1}{B_N} \right\rfloor .$$

Here, $\lfloor x \rfloor$ denotes the largest integer less than or equal to the real number x.

Input

The input is provided in the following format from standard input:

N
$A_1\ A_2\ \ldots\ A_N$

- All inputs are integers.
- $2 \leq N \leq 2 \times 10^5$
- $1 \leq A_i \leq 10^{18}$
- $A_i \neq A_j\ (i \neq j)$

Output

Print the answer on a single line.

Examples

standard input	standard output
3 2 3 6	3
2 15 4	3
9 284791808 107902 13660981249408 4622332661 13405199 24590921 361 244448137 16077087227955422	4580

Note

In the first example, if we set $(B_1, B_2, B_3) = (6, 2, 3)$, we have

$$\left\lfloor \frac{B_2}{B_1} \right\rfloor + \left\lfloor \frac{B_3}{B_2} \right\rfloor + \left\lfloor \frac{B_1}{B_3} \right\rfloor = \left\lfloor \frac{2}{6} \right\rfloor + \left\lfloor \frac{3}{2} \right\rfloor + \left\lfloor \frac{6}{3} \right\rfloor = 0 + 1 + 2 = 3.$$