Tables

Byteman works as a carpenter. He has just received an order for s pine-wood tables. Although he has plenty of pine-wood boards in his workshop, he has just run out of screws. Therefore he needs to walk to the warehouse and bring back some boxes with screws. What is the minimum number of boxes that he needs to bring in order to have enough screws to make the tables?

Input

The first line of the standard input contains three integers n, k, and s ($1 \leq n, k, s \leq 1000$) separated with single spaces. They denote the number of boxes with screws in Byteman's warehouse, the number of screws needed to make a table and the number of tables to be made by Byteman, respectively. The second line contains n (not necessarily different) integers a_i ($1 \leq a_i \leq 1000$) separated with single spaces, such that a_i is the number of screws in the ith box in the warehouse.

Output

The first and only line of the standard output should contain a single integer - the minimal number of boxes with screws that Byteman needs to bring from his warehouse in order to make s tables. You may assume that Byteman has enough screws in the warehouse to make all tables.

Example

For the input data:

5 6 3
3 9 5 7 3

the correct result is:

3

Explanation of the example. To make three tables, each of which requires six screws, Byteman has to bring three boxes with screws from the warehouse. These can be either the ones containing 3, 7 and 9 screws, or the ones with 9, 5 and 7 screws.

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