C. Liebig's Barrels

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

You have $m = n \cdot k$ wooden staves. The i-th stave has length a_i. You have to assemble n barrels consisting of k staves each, you can use any k staves to construct a barrel. Each stave must belong to exactly one barrel.

Let volume v_j of barrel j be equal to the length of the **minimal** stave in it.

You want to assemble exactly n barrels with the maximal total sum of volumes. But you have to make them *equal enough*, so a difference between volumes of any pair of the resulting barrels must not exceed l, i.e. $|v_x - v_y| \le l$ for any $1 \le x \le n$ and $1 \le y \le n$.

Print maximal total sum of volumes of *equal enough* barrels or 0 if it's impossible to satisfy the condition above.

Input

The first line contains three space-separated integers n, k and l ($1 \le n, k \le 10^5$, $1 \le n \cdot k \le 10^5$, $0 \le l \le 10^9$).

The second line contains $m = n \cdot k$ space-separated integers $a_1, a_2, \ldots, a_m$ ($1 \le a_i \le 10^9$) — lengths of staves.

Output

Print single integer — maximal total sum of the volumes of barrels or 0 if it's impossible to construct exactly n barrels satisfying the condition $|v_x - v_y| \le l$ for any $1 \le x \le n$ and $1 \le y \le n$.

Examples

input

```
4 2 1
2 2 1 2 3 2 2 3
```

output

```
7
```

input

```
2 1 0
10 10
```

output

```
20
```

input

```
1 2 1
5 2
```

output

```
2
```

input

```
3 2 1
1 2 3 4 5 6
```

output

```
0
```

Note

In the first example you can form the following barrels: $[1, 2]$, $[2, 2]$, $[2, 3]$, $[2, 3]$.

In the second example you can form the following barrels: $[10]$, $[10]$.

In the third example you can form the following barrels: $[2, 5]$.

In the fourth example difference between volumes of barrels in any partition is at least 2 so it is impossible to make barrels equal enough.