Task: SWE
Sweets

Day 1. Source file `swe.*` *July 14, 2004*

Available memory: 64 MB. Maximum running time: 0.1 s.

John has got n jars with candies. Each of the jars contains a different kind of candies (i.e. candies from the same jar are of the same kind, and candies from different jars are of different kinds). The i-th jar contains m_i candies. John has decided to eat some of his candies. He would like to eat at least a of them but no more than b. The problem is that John can't decide how many candies and of what kinds he would like to eat. In how many ways can he do it?

Task

Your task is to write a program that:

- reads from the standard input the amount of candies in each of the jars, and integers a and b,
- determines the number of ways John can choose the candies he will eat (satisfying the above conditions),
- writes the result to the standard output

Input

The first line of input contains three integers: n, a and b, separated by single spaces ($1 \le n \le 10$, $0 \le a \le b \le 10\,000\,000$). Each of the following n lines contains one integer. Line $i+1$ contains integer m_i — the amount of candies in the i-th jar ($0 \le m_i \le 1\,000\,000$).

Output

Let k be the number of different ways John can choose the candies to be eaten. The first and only line of output should contain one integer: $k \bmod 2004$ (i.e. the remainder of k divided by 2004).

Example

For the input data:

```
2 1 3
3
5
```

the correct result is:

```
9
```

John can choose candies in the following ways:

$$(1,0),(2,0),(3,0),(0,1),(0,2),(0,3),(1,1),(1,2),(2,1)$$