

# 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 ( $1 \leq n \leq 10$ ,  $0 \leq a \leq b \leq 10\,000\,000$ ). 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 ( $0 \leq m_i \leq 1\,000\,000$ ).

## 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:

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