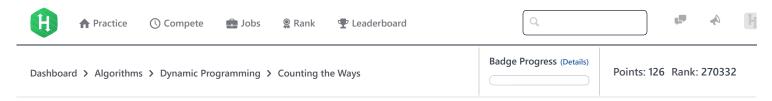
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# Counting the Ways

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	Discussions Editorial 🔒	Discussions	Leaderboard	Submissions	Problem	
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Little Walter likes playing with his toy scales. He has N types of weights. The  $i^{th}$  weight type has weight  $a_i$ . There are infinitely many weights of each type.

Recently, Walter defined a function, F(X), denoting the number of different ways to combine several weights so their total weight is equal to X. Ways are considered to be different if there is a type which has a different number of weights used in these two ways.

For example, if there are 3 types of weights with corresonding weights 1, 1, and 2, then there are 4 ways to get a total weight of 2:

- 1. Use 2 weights of type 1.
- 2. Use 2 weights of type 2.
- 3. Use 1 weight of type 1 and 1 weight of type 2.
- 4. Use 1 weight of type 3.

Given N, L, R, and  $a_1, a_2, \ldots, a_N$ , can you find the value of  $F(L) + F(L+1) + \ldots + F(R)$ ?

## **Input Format**

The first line contains a single integer, N, denoting the number of types of weights.

The second line contains N space-separated integers describing the values of  $a_1, a_2, \ldots, a_N$ , respectively

The third line contains two space-separated integers denoting the respective values of  $m{L}$  and  $m{R}$ .

### Constraints

- $1 \le N \le 10$
- $0 < a_i \le 10^5$
- $a_1 \times a_2 \times \ldots \times a_N \leq 10^5$
- $1 \le L \le R \le 10^{17}$

Note: The time limit for C/C++ is 1 second, and for Java it's 2 seconds.

# **Output Format**

Print a single integer denoting the answer to the question. As this value can be very large, your answer must be modulo  $10^9 + 7$ .

## **Sample Input**

3 1 2 3

#### **Sample Output**

22

16/11/2017 HackerRank

**Explanation** 

```
F(1) = 1

F(2) = 2

F(3) = 3
```

F(4) = 4

F(5) = 5

F(6) = 7

f y in Submissions:239 Max Score:100 Difficulty: Expert Rate This Challenge: ☆ ☆ ☆ ☆ ☆



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