23/05/2019 M - Candies

# **M** - Candies

Time Limit: 2 sec / Memory Limit: 1024 MB

Score: 100 points

#### **Problem Statement**

There are N children, numbered 1, 2, ..., N.

They have decided to share K candies among themselves. Here, for each i ( $1 \le i \le N$ ), Child i must receive between 0 and  $a_i$  candies (inclusive). Also, no candies should be left over.

Find the number of ways for them to share candies, modulo  $10^9 + 7$ . Here, two ways are said to be different when there exists a child who receives a different number of candies.

#### **Constraints**

- All values in input are integers.
- $1 \le N \le 100$
- $0 \le K \le 10^5$
- $0 \le a_i \le K$

### Input

Input is given from Standard Input in the following format:

#### **Output**

Print the number of ways for the children to share candies, modulo  $10^9 + 7$ .

# Sample Input 1 Copy

3 4 1 2 3 Сору

## Sample Output 1

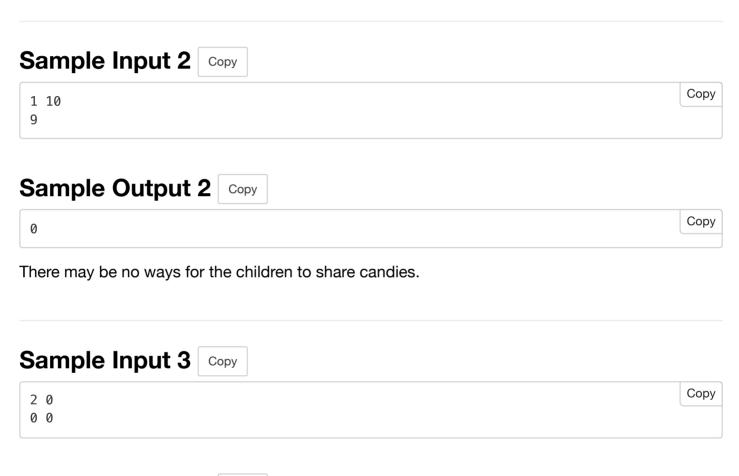
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There are five ways for the children to share candies, as follows:

- (0,1,3)
- (0,2,2)
- (1,0,3)
- (1,1,2)
- (1,2,1)

Here, in each sequence, the i-th element represents the number of candies that Child ireceives.



# Sample Output 3 Copy

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There is one way for the children to share candies, as follows:

• (0,0)

## Sample Input 4 Cor

4 100000 100000 100000 100000 100000 23/05/2019 M - Candies

Sample Output 4 Copy

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