

M - Candies

Time Limit: 2 sec / Memory Limit: 1024 MB

Score : 100 points

Problem Statement

There are N children, numbered $1, 2, \dots, N$.

They have decided to share K candies among themselves. Here, for each i ($1 \leq i \leq N$), 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.
- $1 \leq N \leq 100$
- $0 \leq K \leq 10^5$
- $0 \leq a_i \leq K$

Input

Input is given from Standard Input in the following format:

```
N K
a1 a2 ... aN
```

Output

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

Sample Input 1

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```
3 4
1 2 3
```

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Sample Output 1

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5

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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 i receives.

Sample Input 2

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```
1 10
9
```

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Sample Output 2

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```
0
```

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There may be no ways for the children to share candies.

Sample Input 3

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```
2 0
0 0
```

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Sample Output 3

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```
1
```

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

- (0, 0)

Sample Input 4

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```
4 100000
100000 100000 100000 100000
```

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Sample Output 4

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665683269

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