

Subsets Sum

You are given a **set** of N positive integers (**set A**). Find the number of **subsets** that have their sums equal to S . Subsets may have any number of integers between 1 to N (**inclusive**).

Note: A set will not consist of repeated elements

Example 1

```
If A = {1, 2, 5, 10, 12} & S = 12,  
Then subsets are,  
{2, 10} & {12}
```

Example 2

```
If A = {1, 2, 3, 4, 5} & S = 5,  
Then subsets are,  
{1, 4}, {2, 3} & {5}
```

Input Format

First line contains 2 integers, N & S .

Next line contains N space separated integers(integers of the set A), with the i^{th} of them being A_i .

Constraints

- $1 \leq N, S \leq 1000$
- $1 \leq A_i \leq 1000$

Limits

- **Time Limit:** 1s
- **Memory Limit:** 256MB

Output Format

Number of subsets that have their sums equal to S .

Sample Input 0

```
5 12  
1 2 5 10 12
```

Sample Output 0

```
2
```

Explanation 0

Explained above

Sample Input 1

```
5 5
1 2 3 4 5
```

Sample Output 1

```
3
```

Explanation 1

Explained above