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The Virtual Learning Environment for Computer Programming

Equal sums (3)

P11655_en

Write a program that, given a natural number s and n natural numbers x_1, \ldots, x_n , prints all the subsets (maybe with repeated numbers, but using every x_i at most once) whose sum is exactly s.

Input

Input consists of a natural number s, followed by a number n > 0, followed by x_1, \ldots, x_n .

Output

Print all the subsets whose sum is s that can be made up with x_1, \ldots, x_n .

Information about the checker

You can print in any order both the solutions and the elements inside each solution.

Hint

For this exercise, a very simple algorithm can be too slow.

Sample input 1

```
6
7
1 6 0 1 3 0 2
```

Sample output 1

```
{1,3,2}
{1,3,0,2}
{0,1,3,2,}
{0,1,3,0,2}
{6}
{6,0}
{6,0}
{6,0,0}
{1,3,2}
{1,3,0,2}
{1,0,3,0,2}
```

Sample input 2

```
10
10
1 1 1 1 1 1 1 1 1 1 1
```

Sample output 2

```
{1,1,1,1,1,1,1,1,1,1,1}
```

Problem information

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