Equal sums (1) P40685_en

Write a program that, given an integer number s and n integer 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 an integer 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, simple backtracking solutions are accepted. No optimizations are required.

Sample input 1

```
6
7
1 -2 0 3 -4 5 1
```

Sample output 1

```
{5,1}
{0,5,1}
{-2,3,5}
{-2,0,3,5}
{1,5}
{1,3,-4,5,1}
{1,0,5}
{1,0,3,-4,5,1}
```

Sample input 2

```
0
2
-5 5
```

Sample output 2

```
{}
{-5,5}
```

Problem information

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