DWITE '07 R1 #4 - Stacks of Blocks

Time limit: 2.0s   **Memory limit:** 64M

DWITE Online Computer Programming Contest, October 2007, Problem 4

Some kids play with blocks, and build things by stacking different blocks on top of each other. Given a set of blocks and a target height, we want to find out if it's possible to construct a stack with an exact specified height.

The input will contain at least 3 lines, one positive integer value per line. The first line will contain an integer H, the target height for the stack. $0 \leq H \leq 100$

The second line will contain an integer S, number of blocks in a set. $0 \leq S \leq 10$

The next S lines will contain integers, one per line; $0 \leq N \leq 10$; representing the height of blocks in the set.

The output file will contain a single integer value, a minimum number of blocks out of the supplied set, required to build a stack of the given height. If it is impossible to build the desired stack, output 0.

Sample Input 1

```
5
3
1
2
3
```

Sample Output 1

```
2
```

Sample Input 2

```
10
3
1
5
7
```

Sample Output 2

```
0
```