F Partition (`partition.{c,cc,java}`)

F.1 Description

A partition of a nonnegative integer is an unordered list of positive integers such that the sum of the entries of the list equals the original number. Given a nonnegative integer n and a set S of positive integers, can you determine whether there exists a partition of n where all entries are members of S?

F.2 Input

The input consists of multiple test cases. The first line of each test case consists of the integers n and m, where m is the size of S. $0 \leq n \leq 10^9$ and $1 \leq m \leq 10$. The second line consists of m integers $s_1, ..., s_m$, which are the members of S, given in increasing order. $1 \leq s_i \leq 1000$ for all i. The input is followed by a case with $n = m = -1$, which should not be processed. For example:

```
6 3
2 3 5
10 2
3 4
10 2
3 8
-1 -1
```

F.3 Output

For each test case, print a single line containing "yes" if there exists a partition of n all of whose entries are members of S, and "no" otherwise. For example:

```
yes
yes
no
```