Some things grow if you put them together.

We have some metallic bars, theirs length known, and, if necessary, we want to solder some of them in order to obtain another one being exactly a given length long. No bar can be cut up. Is it possible?

Input

The first line of the input contains an integer,t, $0 \leq t \leq 50$, indicating the number of test cases. For each test case, three lines appear, the first one contains a number n, $0 \leq n \leq 1000$, representing the length of the bar we want to obtain. The second line contains a number p, $1 \leq p \leq 20$, representing the number of bars we have. The third line of each test case contains p numbers, representing the length of the p bars.

Output

For each test case the output should contain a single line, consists of the string '`YES`' or the string '`NO`', depending on whether solution is possible or not.

Sample Input

```
4
25
4
10 12 5 7
925
10
45 15 120 500 235 58 6 12 175 70
120
5
25 25 25 25 25
0
2
13 567
```

Sample Output

```
NO
YES
NO
YES
```