COCI '09 Contest 2 #3 Kutevi

Time limit: 1.0s   **Memory limit:** 32M

One day Mirko was cleaning up his room and found a straightedge and a compass. He went to the school the next day and challenged his friend Slavko to a geometric construction battle. Mirko knows how to construct some angles using the straightedge and compass and knows how to subtract and add any two angles he constructs. Slavko now shouts random angles and Mirko must draw them as fast as possible.

You are observing this battle and would like to know if Mirko can construct the angles Slavko shouts at all.

Input Specification

The first line of input contains two integers, N $(1 \leq N \leq 10)$, number of angles Mirko knows how to construct initially and K $(1 \leq K \leq 10)$, number of angles Slavko selected.

The second line of input contains N integers, all smaller than 360, the angles Mirko knows how to construct initially.

The third line contains K integers, all smaller than 360, the angles Slavko selected.

Output Specification

Output consists of K lines, one for each angle Slavko selected. The i-th line should contain YES if Mirko can construct the i-th angle, and NO otherwise.
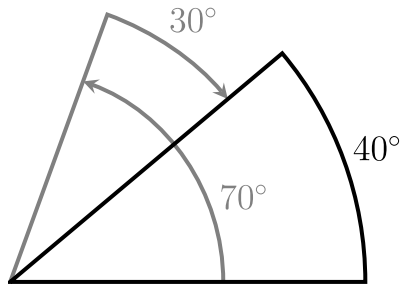
Sample Input 1

```
2 1
30 70
40
```

Sample Output 1

```
YES
```

Explanation for Sample Output 1

Subtracting $30°$ from $70°$ yields $70° - 30° = 40°$.

Sample Input 2

```
1 1
100
60
```

Sample Output 2

```
YES
```

Explanation for Sample Output 2

Adding $100°$ 15 times yields $1500°$, also known as $60°$.

Sample Input 3

```
3 2
10 20 30
5 70
```

Sample Output 3

```
NO
YES
```