

Output For every test case, your program should output, on a separate line, whether it is possible to find a non-empty subset of disks such that the sum of their heights is congruent to i modulo k . Output `yes` if it is possible and `no` otherwise.

Points There are three groups of test sets, worth 100 points in total.

1. For the first group of test sets, worth 30 points, you may assume that $n \leq 20$.
2. For the second group of test sets, worth 30 points, you may assume that $n \leq 30$.
3. For the third group of test sets, worth 40 points, there are no additional assumptions.

Corresponding sample test sets are contained in `testi.in/out`, for $i \in \{1, 2, 3\}$.

Sample Input

```
2
3 0 5
4
12
7
3 0 5
4
11
7
```

Sample Output

```
no
yes
```