

# Divisibility

Consider an arbitrary sequence of integers. One can place + or - operators between integers in the sequence, thus deriving different arithmetical expressions that evaluate to different values. Let us, for example, take the sequence: 17, 5, -21, 15. There are eight possible expressions:

$$\begin{aligned}17 + 5 + -21 + 15 &= 16 \\17 + 5 + -21 - 15 &= -14 \\17 + 5 - -21 + 15 &= 58 \\17 + 5 - -21 - 15 &= 28 \\17 - 5 + -21 + 15 &= 6 \\17 - 5 + -21 - 15 &= -24 \\17 - 5 - -21 + 15 &= 48 \\17 - 5 - -21 - 15 &= 18\end{aligned}$$

We call the sequence of integers **divisible** by  $K$  if + or - operators can be placed between integers in the sequence in such way that resulting value is divisible by  $K$ . In the above example, the sequence is divisible by 7 ( $17 + 5 + -21 - 15 = -14$ ) but is not divisible by 5.

You are to write a program that will determine divisibility of sequence of integers.

## Input

The first line of the input file contains an integer  $N$  indicating the number of cases to be analyzed. Then  $N$  pairs of lines follow.

For each one of this pairs, the first line contains two integers,  $M$  and  $K$  ( $1 \leq M \leq 1000$ ,  $2 \leq K \leq 100$ ) separated by a space. The second line contains a sequence of  $M$  integers separated by spaces. Each integer is not greater than 10000 by its absolute value.

## Output

For each case in the input file, write to the output file the word "YES" if given sequence of integers is divisible by  $K$  or "NO" if it's not.

Sample Input	Sample output
2	YES
4 7	NO
17 5 -21 15	
4 5	
17 5 -21 15	