J. Healthy Recipes

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Over the last few months, Conan has trained very intensively for competing in the ACM/ICPC contest. What he did are just eating, sleeping and coding; as a result, he has put on quite a few kilos. Since the training period are about to finish, he is planning to come back to a healthier life style: going to the gym and eating more properly.

There are N delicious dishes, dish i has A_i calories. A recipe for a meal is the combination of dishes where each dish appears no more than 1. A perfect, healthy recipe should have the total calories of M calories.

Conan is planning his meals to details and he wonders will there be enough K different perfect recipes for the next K days. 2 recipes are considered different if there is at least a dish appears in one recipe but not the other.

Input

The input starts with the number T ($T \le 500$)- the number of tests. Then T tests follow.

- The first line of each test is 3 integers N, M, K. ($1 \le N \le 100, 0 \le M \le 10000, 1 \le K \le 100$).
- The second line of each test consist of N integers A_i. ($0 \le A_i \le 10000$)

Output

For each test, if there are at least K different perfect recipes, print “ENOUGH”; otherwise you should print the number of perfect recipes.

Examples

input	Copy
2 10 1000 7 100 200 300 400 500 600 700 800 900 1000 10 1000 30 100 200 300 400 500 600 700 800 900 1000	

output	Copy
ENOUGH 10	

Note

All the dishes in 2 samples are similar. There are 10 different perfect recipes:

$1000 = 100 + 200 + 300 + 400$

$1000 = 100 + 200 + 700$

$1000 = 100 + 300 + 600$

$1000 = 100 + 400 + 500$

$1000 = 100 + 900$

$1000 = 200 + 300 + 500$

$1000 = 200 + 800$

$1000 = 300 + 700$

$1000 = 400 + 600$

$1000 = 1000$
