Hash Tables: Ice Cream Parlor ★

Problem Submissions Leaderboard Editorial

Each time Sunny and Johnny take a trip to the Ice Cream Parlor, they pool their money to buy ice cream. On any given day, the parlor offers a line of flavors. Each flavor has a cost associated with it.

Given the value of $money$ and the $cost$ of each flavor for t trips to the Ice Cream Parlor, help Sunny and Johnny choose two distinct flavors such that they spend their entire pool of money during each visit. ID numbers are the 1- based index number associated with a $cost$. For each trip to the parlor, print the ID numbers for the two types of ice cream that Sunny and Johnny purchase as two space-separated integers on a new line. You must print the smaller ID first and the larger ID second.

Example

$cost = [2, 1, 3, 5, 6]$
$money = 5$

They would purchase flavor ID's 1 and 3 for a cost of $2 + 3 = 5$. Use 1 based indexing for your response.

Note:

- Two ice creams having unique IDs i and j may have the same cost (i.e., $cost[i] \equiv cost[j]$).
- There will always be a unique solution.

Function Description

Complete the function whatFlavors in the editor below.

whatFlavors has the following parameter(s):

- int cost[n] the prices for each flavor
- int money: the amount of money they have to spend

Prints

- int int: the indices of the two flavors they will purchase as two space-separated integers on a line

Input Format

The first line contains an integer, t, the number of trips to the ice cream parlor.

Each of the next t sets of 3 lines is as follows:

- The first line contains $money$.
- The second line contains an integer, n, the size of the array $cost$.
- The third line contains n space-separated integers denoting the $cost[i]$.

Constraints

- $1 \leq t \leq 50$
- $2 \leq money \leq 10^9$
- $2 \leq n \leq 5 * 10^4$
- $1 \leq cost[i] \leq 10^9$

Sample Input

```
STDIN       Function
-----       --------
2           t = 2
4           money = 4
5           cost[] size n = 5
1 4 5 3 2   cost = [1, 4, 5, 3, 2]
4           money = 4
4           cost[] size n = 4
2 2 4 3     cost = [2, 2, 4, 3]
```

Sample Output

```
1 4
1 2
```

Explanation

Sunny and Johnny make the following two trips to the parlor:

1. The first time, they pool together $money = 4$ dollars. There are five flavors available that day and flavors 1 and 4 have a total cost of $1 + 3 = 4$.
2. The second time, they pool together $money = 4$ dollars. There are four flavors available that day and flavors 1 and 2 have a total cost of $2 + 2 = 4$.

Change Theme | JavaScript (Node.js)

```
20
21  function readLine() {
22      return inputString[currentLine++];
23  }
24
25  // Complete the whatFlavors function below.
26  function whatFlavors(cost, money) {
27      const map = new Map();
28      for (let i = 0; i < cost.length; i++) {
29          var target = money - cost[i];
30          if (map.has(target)) {
31              console.log(map.get(target), i + 1);
32              break;
33          }
34          map.set(cost[i], i + 1);
35      }
36  }
37
38  function main() {
39      const t = parseInt(readLine(), 10);
40
41      for (let tItr = 0; tItr < t; tItr++) {
42          const money = parseInt(readLine(), 10);
43
```

Line: 36 Col: 2

Upload Code as File | Test against custom input | Run Code | Submit Code

Congratulations!

You have passed the sample test cases. Click the submit button to run your code against all the test cases.

Sample Test case 0

Sample Test case 1

Sample Test case 2

Input (stdin) Download

```
2
4
5
1 4 5 3 2
4
4
2 2 4 3
```

Your Output (stdout)

```
1 4
```

2 1 2