Battleships 2

🔒 locked

You are playing a video game, you have one ship to defend against **N** enemy ships. Each enemy ship has it's own initial health. You have **M** different types of weapons on your ship, each of which have it's own firepower. Your objective is to provide the minimum number of shots that would minimize each enemy's health (0) without making it negative using **dynamic programming**.

Submissions: 32
Max Score: 10
Difficulty: Medium

Rate This Challenge:
☆ ☆ ☆ ☆ ☆

More

Input Format

- An integer N representing the number of enemy ships in the game.

- The next line will contain N numbers representing the initial health for each enemy ship.

- The following line is an integer M representing the number of weapons available.

- The following line contain M numbers representing the firepower for each weapon.

Constraints

- N is between 1 and 10^5

- Health is between 0 and 10^4

- M is between 1 and 10^3

- Firepower of each weapon is between 0 and 10^3

Output Format

- N lines (line for each enemy ship) where each line consists of two numbers

  - Final enemy ship health

  - Minimum number of shots required

Sample Input 0

```
5
43 39 12 26 16
3
9 8 7
```

Sample Output 0

```
0 5
0 5
3 1
0 3
0 2
```

```cpp
#include <cmath>
#include <cstdio>
#include <vector>
#include <iostream>
#include <algorithm>
using namespace std;


int main() {
    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
    return 0;
}
```

C++20

Line: 1 Col: 1

⬆ Upload Code as File   ☐ Test against custom input   Run Code   Submit Code