# Cups and Bottles

You will be given a **sequence of integers** – each indicating **cup's capacity**. After that you will be given **another sequence of integers** – **bottle** and the **water** in it. Your job is to try fill up all cups.

Filling is done by picking **exactly one** bottle at a time. You must start picking from **the last received bottle** and start filling from **the first entered cup**. If the current bottle has **N** water, you **give** the **first entered cup N** water, therefore **reducing** its integer value by **N**.

When a cup's **integer value** reaches **0 or less**, it **gets removed**. It is **possible** that the current cup's value is **greater** than the current bottle's value. **In that case** you **pick bottles until** you reduce cup's integer value to **0 or less**. If a bottle's value is **greater** than the cup's **current** value, you fill up the cup **add the remaining water** to the **next bottle in order**. In case there is no such, keep the remaining water in the same bottle.

If you **have managed** to **fill up all cups**, print the **remaining water bottles**, from the **last entered** **– to the first**, otherwise you must print the **remaining cups**, by **order of entrance** – from the **first entered – to the last**.

### Input

* On the **first line** of input you will receive the integers, representing the **cups' capacity**, **separated** by a **single space**.
* On the **second line** of input you will receive the integers, representing the **bottles with water** – each with each, **separated** by a **single space**.

### Output

* On the first line of output you must print the remaining bottles, or the remaining cups, depending on the case you are in. Just **keep** the **orders of printing** exactly as **specified**.

### Constraints

* All of the given numbers will be valid integers in the range [1, 500].
* It is safe to assume that there will be **NO** case in which the water is **exactly as much** as the cups' values, so that at the end there are no cups and no water in the bottles.
* Allowed time/memory: 100ms/16MB.

### Examples

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** | **Comment** |
| **4 2 10 5**  **3 5 5 11 6** | **9** | **We take the first entered cup, and the last entered bottle, as we are told by the description.**  **6 – 4 = 2 – we have 2 more so we add it to the next bottle in order and it becomes 13**  **13 – 2 = 11 -** again more, so we add it to 5 and it becomes 16  **16 – 10 = 6 – we add it to the next in order**  **11 – 5 = 6 – adds its value to the last bottle**  **We’ve managed to fill up all cups, so we print what we have remaining from the bottles.** |
| **1 5 28 11 4**  **3 8 1 9 30 4 5** | **8 3** |  |