# Make a Salad

Write a program that helps you **prepare** **vegetable** **salads**, which must be with a **definite** amount of **calories**. You will receive **two** **lines**. The **first** one will be the **vegetables**. The **second** one, the **calorie values of the salads**. Both will be **separated** by a single **space**. They will come in the following format:

**"{vegetable1} {vegetable2}… {vegetablen}"**

**"{calories1} {calories2}… {caloriesn}"**

Here is a table with the exact names of the **vegetables** and **their calories**:

|  |  |
| --- | --- |
| **Vegetables** | **Calories** |
| tomato | 80 |
| carrot | 136 |
| lettuce | 109 |
| potato | 215 |

Start making the **salads** in the following way: take the **last** **received** **calories** and start adding vegetables from the **first** **received** **vegetable**. Each time you take a vegetable, you must **reduce** the **amount** of **calories** for the **given** **salad** with **its calorie value** and **remove** it from the collection. A salad is considered **ready**, when its **calorie** **value** reaches **0**. When the **salad is ready**, **remove** **it** from the collection. If the calories of the current vegetable **exceed** the amount of **needed** **calories** for the **salad**, **finish** the salad and **throw** what is left of the vegetable. When you run out of **either** **salads to make**, or **vegetables**, print **the salads you made** (their calorie value) on a single line, separated by space, beginning with the **first** salad you made in the following format:

**"{salad1} {salad2}… {saladn}"**

At last, print either the vegetables that are left, or the calories of the salads you couldn't prepare, **depending on the case** – if you have vegetables left, print them, if you have salads left, print them on a single **line**, **separated** by **space**.

### Input

* On the **first** line, you will receive the **vegetables** – **strings** separated by a single space.
* On the **second** line, you will receive the **salads' calories** – **integers**, separated by a single space.
* Input will always be **valid**.

### Output

* Print the finished salads' calories from the first made one to the last one in the format described above

### Examples

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** | **Comments** |
| tomato potato carrot lettuce tomato  250 563 478 330 470 112 | 112 470  330 478 563 250 | We take the **first** received vegetable - the **tomato**. It has **80** calories, so we take the **last** received salad calories – **112** and **subtract** **80** from it. The salad needs **32** more **calories**. We **remove** the **vegetable** and take the **next** one – **potato**. It has **215** **calories**. The **first** salad is **finished**, so we **remove** the **vegetable**, also the **salad's calories** from the collection. We take the **next** **one**, which needs **470** calories, and so on. |
| carrot tomato potato potato lettuce tomato potato potato  105 130 200 110 | 110 200 130 105  tomato potato potato |  |