Spaceship Crafting

Stephen wants to build a spaceship and start travelling through the galaxy. He has some materials, which upon mixing can give him the more advanced materials he needs to build the spaceship. You have to help him get the job done.

First, you will be given **a sequence of integers, representing chemical liquids**. Afterwards, you will be given another **sequence of integers representing physical items**.

You need to start from the **first liquid** and try to mix it with the **last physical item**. If the **sum** of their values is **equal** to **any of the items in the table below – create the item corresponding** to the **value** and **remove both** the **liquid** and the **physical item**. Otherwise, **remove only the liquid** and **increase** the **value** of the item **by 3**. You need to **stop** combining when you have **no more liquids** or **physical items**.

Advanced Material	Value needed
Glass	25
Aluminium	50
Lithium	75
Carbon fiber	100

In order to build a spaceship, Stephen needs **one of each** of the **Advanced materials**.

Input

- On the **first line**, you will receive the integers representing the **chemical liquids**, **separated** by a **single space**.
- On the **second line**, you will receive the integers representing the **physical items**, **separated** by a **single space**.

Output

- On the **first** line of output – print if Stephen succeeded in building the spaceship:
    - "**Wohoo! You succeeded in building the spaceship!**"

- "**Ugh, what a pity! You didn't have enough materials to build the spaceship.**"

- On the **second** line - print all liquids you have left:
  - If there are no liquids: "**Liquids left: none**"
  - If there are liquids: "**Liquids left: {liquid1}, {liquid2}, {liquid3}, (…)**"
- On the **third** line - print all physical materials you have left:
  - If there are no items: "**Physical items left: none**"
  - If there are items: "**Physical items left: {item1}, {item2}, {item3}, (…)**"
- Then**,** you need to print **all** Advanced Materials and the **amount you have of them**, ordered **alphabetically**:
  - **"Aluminium: {amount}"**
  - **"Carbon fiber: {amount}"**
  - **"Glass: {amount}"**
  - **"Lithium: {amount}"**

Constraints

- All of the given numbers will be valid integers in the range **[0, 100]**.
- Advanced materials **can be** crafted more than once.

Examples

Input	Output	Comment
1 25 50 50 50 25 25 24	Wohoo! You succeeded in building the spaceship! Liquids left: none Physical items left: none Aluminium: 1 Carbon fiber: 1 Glass: 1 Lithium: 1	The first pair is the **first liquid** with value of 1 and the **last physical item** of value 24, their **sum** is 25, so we **craft** Glass. Then we have **sum** of 50, we **craft** Aluminium. After that we have **sum** of 75, we **craft** Lithium. Next we have **sum** of 100, so we **craft** Carbon fiber. We have **no left liquids and/or physical items**, so we **stop** trying to craft Advanced Materials, but we **have enough** of them to **build** the spaceship.
10 20 30 40 50 50 40 30 30 15	Ugh, what a pity! You didn't have enough materials to build the spaceship. Liquids left: none Physical items left: 39, 40, 50	**First, we take the first given liquid and the last physical item, their sum is 25 and we craft Glass, removing both of them from the collections.** **Then, we take the next pair and their sum is 50, crafting Aluminium and again – removing both the liquid and the item.**

	Aluminium: 1 Carbon fiber: 0 Glass: 1 Lithium: 0	**Next, we take the next pair and their sum is 60, so we remove the liquid and increase the item's value by 3.** **The next 2 pairs follow the same scenario, so we end up with not enough materials for building a spaceship, no liquids left and some physical items, one of which is 39 (originally 30, increased its value three times).**