

Cooking



You are asked to cook baked foods for the near bakery, because your recipes are so great. You need to mix liquids with ingredients to cook the required delicacies.

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

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

Food	Value needed
Bread	25
Cake	50
Pastry	75
Fruit Pie	100

Input

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

Output

- On the **first** line of output print one of the following outputs:
 - "Wohoo! You succeeded in cooking all the food!" -if you have at least **one of each** of the **foods**, after completing combining.
 - "Ugh, what a pity! You didn't have enough materials to cook everything." – if you **did not** collect **one of each** of the **foods**, after completing combining.
- 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: "Ingredients left: none"
- If there are items: "Ingredients left: {ingredient}, {ingredient}, {ingredient}, (...)"
- Then, you need to print **all** Advanced Materials and the **amount you have of them**, ordered **alphabetically**:
 - "Bread: {amount}"
 - "Cake: {amount}"
 - "Fruit Pie: {amount}"
 - "Pastry: {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 cooking all the food! Liquids left: none Ingredients left: none Bread: 1 Cake: 1 Fruit pie: 1 Pastry: 1	The first pair is the first liquid with value of 1 and the last ingredient of value 24, their sum is 25, so we cook Bread. Then we have sum of 50, we cook Cake. After that we have sum of 75, we cook Pastry. Next we have sum of 100, so we craft Fruit Pie. We have no left liquids and/or ingredients , so we stop trying to cook foods, but we have enough of them to give them to the bakery .
10 20 30 40 50 50 40 30 30 15	Ugh, what a pity! You didn't have enough materials to to cook everything. Liquids left: none Ingredients left: 39, 40, 50 Bread: 1 Cake: 1 Fruit pie: 0 Pastry: 0	First, we take the first given liquid and the last ingredient , their sum is 25 and we cook Bread, removing both of them from the collections. Then, we take the next pair and their sum is 50, cooking Cake and again – removing both the liquid and the ingredient. Next, we take the next pair and their sum is 60, so we remove the liquid and increase the ingredient's value by 3. The next 2 pairs follow the same scenario , so we end up with not enough materials for all the food, no liquids left and some ingredients , one of which is 39 (originally 30, increased its value three times).