



First you will be given a **sequence of integers representing males**. Afterwards you will be given another **sequence of integers representing females**.

You have to start from the **first female** and try to match it with the **last male**.

- If their **values** are **equal**, you have to **match them** and **remove both** of them. Otherwise you should **remove only the female** and **decrease the value** of the **male** by 2.
- If someone's value is **equal to or below 0**, you should **remove him/her** from the records **before** trying to **match** him/her with anybody.
- Special case - if someone's **value divisible by 25 without remainder**, you should **remove him/her** and the **next person** of the **same gender**.

You need to **stop matching** people when you have **no more females or males**.

Input

- On the **first line** of input you will receive the integers, representing the **males**, **separated** by a **single space**.
- On the **second line** of input you will receive the integers, representing the **females**, **separated** by a **single**

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Output

- On the first line of output - print the number of matches:
 - **"Matches: {matchesCount}"**
- On the second line - print all males left:
 - If there are no males: **"Males left: none"**
 - If there are males: **"Males left: {male1}, {male2}, {male3}, (...)"**
- On the third line - print all females left:
 - If there are no females: **"Females left: none"**
 - If there are females: **"Females left: {female1}, {female2}, {female3}, (...)"**



Constraints

- All of the given numbers will be valid integers in the range [-100, 100].

Examples

Input	Output	Comment
3 6 9 12 12 9 6 1 25 25	Matches: 3 Males left: 1 Females left: none	The first pair is the first female with value of 12 and the last male of value 12, their values are equal , so we match them , therefore - remove them from the records . Then we have two more matches (9 == 9 and 6 == 6). But the value of the next male is 3 and the value of the next female is 1 , it's not a match and we remove the female and reduce the male's value by 2. We have a female whose value is 25 and we have to remove her and the next female . Then, we print the desired output .
3 0 3 6 9 0 12 12 9 6 1 2 3 15 13 4	Matches: 4 Males left: none Females left: 15, 13, 4	