Autumn Cocktails

Summer is over, autumn has come. For this purpose, we have prepared several cocktails that we think you will like.

First, you will receive a sequence of **integers**, representing the number of ingredients in a single bucket. After that, you will be given another sequence of **integers** - the freshness level of the ingredients.

Your task is to **mix** them so you can produce the cocktails, listed in the table below with the **exact** freshness level.

Cocktail	Freshness Level needed
Pear Sour	150
The Harvest	250
Apple Hinny	300
High Fashion	400

To mix a cocktail, you have to take the **first bucket of ingredients** and the **last freshness level value**. The total freshness level is calculated by their **multiplication**. If the product of this operation **equals** one of the levels described in the table, you make the cocktail and **remove both** buckets with ingredients and freshness value. **Otherwise,** you should **remove the freshness level**, **increase** the ingredient value by **5, then remove it from the first position and add it at the end**. In case you have an ingredient with a value of **0** you have to **remove it** and continue mixing the cocktails.
You need to stop making cocktails when you **run out** of buckets with ingredients **or** freshness level values.

Your task is considered done if you make at least **four** cocktails - **one of each type**.

Input

- The first line of input will represent the values of buckets with ingredients - **integers**, separated by a **single space**.
- On the second line, you will be given the freshness values - **integers** again, separated by a **single space**.

Output

- On the first line of output - print whether you've succeeded in preparing the cocktails
  - `"It's party time! The cocktails are ready!".`
  - `"What a pity! You didn't manage to prepare all cocktails.".`
- On the next output line - print the **sum** of the ingredients **only if they are left any**

- "**Ingredients left: {sum of the left ingredients}**".

- On the last few lines, you have to print the cocktails you **have made at least once,** ordered **alphabetically** in the format:
  " # {cocktail name} --> {amount}".

Constraints

- All of the ingredients' values and freshness level values will be **integers** in the range **[0, 100].**
- We can have **more than one** mixed cocktail of the types specified in the table above.

Examples

Input	Output	Comment
10 10 12 8 10 12 25 15 50 25 25 15	It's party time! The cocktails are ready! # Apple Hinny --> 2 # High Fashion --> 1 # Pear Sour --> 2 # The Harvest --> 1	First, you take the **first** ingredient and the **last** freshness level value and **multiply** them - the result is 150 so we **make** a Pear Sour cocktail. Next, we have a product of 250 and The Harvest cocktail is **ready**. Then we **mix** the Apple Hinny cocktail by multiplying 12 and 25. The product of next ingredient value and freshness level value is 400 and we **make** High Fashion cocktails. The next pair is 10 and 15, we multiply them and mix one more Pear Sour. The last multiplication of 12 and 25 equals 300 and we make one more Apple Hinny. There are **no more ingredients and freshness values** so we stop mixing cocktails, but we have **one of each** cocktail type and print the **proper** message.
12 20 0 6 19 12 12 25	What a pity! You didn't manage to prepare all cocktails. Ingredients left: 55 # Apple Hinny --> 1	The first pair is 12 and 25, we mix the Apple Hinny cocktail and remove both of them. Next, we take 20 and 12 - the product is 240 - we can't mix a cocktail, so we remove the freshness level value, increase the ingredient value by 5, remove it from the beginning of the buckets sequence and add it at the end. The next ingredient has a value of 0 - we remove it and continue. The next pair is 6 and 12 - again we can't make a cocktail. After that we don't have more freshness level values, so we stop mixing drinks. The rest of the ingredients are 19, 25, and 11 with a sum of 55.