# It’s Chocolate Time



*You love chocolate and we have prepared plenty of different types of chocolate only for you.*

First, you will receive a sequence of **doubles**, representing the milk quantity for the preparation of single chocolate. After that, you will be given another sequence of **doubles** - the cacao powder quantity.

Your task is to **mix** them so you can prepare the chocolates, listed in the table below with different **cacao percentages**.

|  |  |
| --- | --- |
| **Chocolate types** | **Cacao percentage** |
| Milk Chocolate | 30 |
| Dark Chocolate | 50 |
| Baking Chocolate | 100 |

To prepare chocolate, you have to take the **first** **milk value** and the **last cacao powder value**. The **cacao percentage** is calculated by dividing the **cacao powder value** by **the sum of the milk and cacao powder values.**

If the result of this operation **equals** one of the point levels described in the table, you make the chocolate and **remove both** milk and cacao powder values.

**Otherwise,** you should **remove the cacao powder value**, **increase** the milk value by **10, then remove it from the first position and add it at the end**. You need to stop producing chocolates when you **run out** of milk or cacao powder values.

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

## Input

* The first line of input will represent the milk values - **doubles**, separated by a **single space**.
* On the second line, you will be given the cacao powder values - **doubles** again, separated by a **single space**.

## Output

* On the first line of output - print whether you've succeeded in preparing the chocolates
* **"It’s a Chocolate Time. All chocolate types are prepared.**"
* "**Sorry, but you didn't succeed to prepare all types of chocolates.**"
* In the next few lines, you have to print the chocolates you **have made at least once,** ordered **alphabetically** in the format:

**" # {chocolate type} --> {amount}"**.

## Constraints

* All values will be **doubles** in the range **[0, 200].**

## Examples

|  |  |  |
| --- | --- | --- |
| ****Input**** | ****Output**** | ****Comment**** |
| **0 60 70 140 150**  **150 60 30 60 100** | **It’s a Chocolate Time. All chocolate types are prepared.**  **# Baking Chocolate --> 1**  **# Dark Chocolate --> 2**  **# Milk Chocolate --> 2** | First, you take the **first** milk value and the **last** cacao powder value and **divide** the **cacao powder value** by **the sum of the milk and cacao powder values**. - the result is 100% so we **make** a Baking Chocolate. Next, we have a cacao percentage of 50% and Dark Chocolate is **ready**. Then we **prepare** the Milk Chocolate by taking the values of 70 and 30. The next chocolate is again Milk Chocolate. The next pair is 150 and 150 and the result of cacao percentage is 100 prepare one more Dark chocolate. There are **no more milk and cacao powder values** so we stop preparing chocolates, but we have **one of each** chocolate type and print the **proper** message. |
| **25 100 70.0 20**  **20 30 0 50.5** | **Sorry, but you didn't succeed to prepare all types of chocolates.**  **# Dark Chocolate --> 1**  **# Milk Chocolate --> 1** | **The first pair is 25 and 50.5, we** divide the cacao powder value by the sum of the milk and cacao powder values - the result is 67%**, so we remove the cacao powder value, increase the milk value by 10, remove it from the beginning of the milk queue and add it at the end. Next, we take 100 and 0 - the cacao percentage is 0 - we can't prepare chocolate,** %**, so we remove the cacao powder value, increase the milk value with 10, remove it from the beginning of the milk queue and add it at the end. The next pair is 70 and 30 – we** divide the cacao powder value by the sum of the milk and cacao powder values. - the result is 30% so we make a Milk Chocolate.  **The next pair is 20 and 20 – we** divide the cacao powder value by the sum of the milk and cacao powder values. - the result is 50% so we make a Dark Chocolate.  There are **no more cacao powder values** so we stop preparing chocolates. We don’t have **one of each** chocolate type and print the **proper** message. |