

Problem 2 – Beer Stock

Students in SoftUni really like drinking beers, so the Game Bar has to always be stocked with beer and with all the students that will be celebrating passing the Programming Basics Exam a lot of beer is going to be needed today. Normally Stamat would be keeping track of the stock, however he was at a party last night and got wasted, since he's too drunk to go and count the beers he asked you to write him a program to do it instead.

Before the exam starts the students who will want a beer will tell you, so on the first line you'll get the **amount of reserved beers**, then the shipments will start coming in. Each shipment will be in the format "**{amount} {type}**", where **type** is the type of package received – either **beers**, **sixpacks** or **cases** and **amount** is the **amount received**, each **sixpack** holds exactly **6 beers** and each **case** holds exactly **24 beers**. However since the world isn't perfect in **every 100 beers exactly the 100th is always broken** so it gets **discarded**. On the last line you'll receive the text "**Exam Over**", at that point you have to calculate all the beers received and if they are **more or equal** to the **amount of reserved beers** print "**Cheers! Beer left: {amount of cases left} cases, {amount of sixpacks left} sixpacks and {amount of beers left} beers.**" or if they are **less** print "**Not enough beer. Beer needed: {amount of cases needed} cases, {amount of sixpacks needed} sixpacks and {amount of beers needed} beers.**" Where **{amount of cases left/needed}**, **{amount of sixpacks left/needed}** and **{amount of beers left/needed}** represent respectively the amount of beer left/needed, represented so that **the most amount of cases are used, after which the most amount of sixpacks are used** (see the Examples to get a better idea).

Input

The input data should be read from the console.

- On the **first line** you'll receive the **amount of reserved beers**.
- On **each of the next lines** you will be given a string representing a shipment in the format "**{amount} {type}**"*, until you receive the command "**Exam Over**".
- The names will always be given in plural regardless of amount "**beers**", "**sixpacks**", "**cases**".
- The amount and the type will be separated by exactly **one space**, there will be no leading or trailing spaces in the input.

The input data will always be valid and in the format described. There is no need to check it explicitly.

***HINT:** Use `string.Split()` to separate `{amount}` from `{type}`.

Output

The output should be printed on the console.

- **If the amount of beer is more or equal to the amount of reserved beer:**
 - "Cheers! Beer left: {amount of cases left} cases, {amount of sixpacks left} sixpacks and {amount of beers left} beers."
- **If the amount of beer is less than the amount of reserved beer:**
 - "Not enough beer. Beer needed: {amount of cases needed} cases, {amount of sixpacks needed} sixpacks and {amount of beers needed} beers."
- The names must always be printed in plural regardless of amount "**beers**", "**sixpacks**", "**cases**".

Constraints

- The input lines will be in the range: **[1... 100]**.
- The **amount of reserved beer**, and the **amount** in a shipment will be valid integers **in the range [0... 2,147,483,647]**.
- Allowed working time for your program: 0.25 seconds.
- Allowed memory: 16 MB.

Examples

Input	Output	Comments
197 1 beers 2 cases 7 sixpacks 3 beers Exam Over	Not enough beer. Beer needed: 4 cases, 1 sixpacks and 1 beers.	Amount of beers we have -> $2(\text{cases}) * 24 + 7(\text{sixpacks}) * 6 + 1 + 3 = \mathbf{94 \text{ beers}}$ Since 94 is less than 197 (the reserved beer), we need $197-94 = \mathbf{103 \text{ more beers}}$ $103 / 24 = \mathbf{4 \text{ cases} + 7 \text{ beers left}}$ $7 / 6 = \mathbf{1 \text{ sixpack} + 1 \text{ beer left}}$ So in the end we need 4 cases, 1 sixpack and 1 beer.

Input	Output	Comments
23 11 beers 3 beers 8 cases Exam Over	Cheers! Beer left: 7 cases, 2 sixpacks and 1 beers.	Amount of beers we have -> $11 + 3 + 8(\text{cases}) * 24 = \mathbf{206 \text{ beers}}$ However since every 100 th beer is always broken we actually have $206 - (206 / 100) = 206 - 2 = \mathbf{204 \text{ beers}}$ Since 204 is more than 23 (the reserved beer), we have $204-23 = \mathbf{181 \text{ beers left}}$ $181 / 24 = \mathbf{7 \text{ cases} + 13 \text{ beers left}}$ $13 / 6 = \mathbf{2 \text{ sixpack} + 1 \text{ beer left}}$ So in the end we have 7 cases, 2 sixpacks and 1 beers left.