## Guinea Pig

**Link:** [**https://judge.softuni.org/Contests/Practice/Index/2031#0**](https://judge.softuni.org/Contests/Practice/Index/2031#0)

*Merry has a guinea pig named Puppy, that she loves very much. Every month she goes to the nearest pet store and buys him everything he needs – food, hay, and cover.*

On the **first three lines**, you will receive **the quantity of food**, **hay**, and **cover**, which Merry buys for a **month (30 days)**. On the **fourth line**, you will receive the **guinea pig's weight**.

**Every day** Puppy eats **300 gr of food**. **Every** **second** day Merry **first feeds the pet**, then gives it a **certain amount of hay** **equal to** **5%** of the rest of the **food**. On **every** **third** day, Merry puts Puppy **cover** with **a quantity of** **1/3** of its **weight**.

**Calculate** whether the quantity of **food, hay, and cover**, will be enough for a **month**.

**If Merry runs out of food, hay, or cover, stop the program!**

## Input

* **On the first line – quantity food in kilograms** - afloating-point number in the range **[0.0 – 10000.0].**
* **On the second line – quantity hay in kilograms** - afloating-point number in the range **[0.0 – 10000.0].**
* **On the third line – quantity cover in kilograms** - afloating-point number in the range **[0.0 – 10000.0].**
* **On the fourth line – guinea's weight in kilograms** - afloating-point number in the range **[0.0 – 10000.0].**

## Output

* If the food, the hay, and the cover are enough, print:
  + **"Everything is fine! Puppy is happy! Food: {excessFood}, Hay: {excessHay}, Cover: {excessCover}."**
* If one of the things is not enough, print:
  + **"Merry must go to the pet store!"**

**The output values must be formatted to the second decimal place!**

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 10  5  5.2  1 | Everything is fine! Puppy is happy! Food: 1.00, Hay: 1.10, Cover: 1.87. |
| You receive food – **10000**, hay – **5000**, cover – **5200**, weight – **1000** (in grams).  On the first day, Merry gives Puppy 300gr food – 9700gr food left.  On the second day, the food left is **9400gr**, so the needed hay is **9400 \* 5% = 470**,and thehay left is **4530.**  On the third day, the cover left is **4866.67,** and the food left is **9100**,and so on.  On the last day, Merry has: food – 1.00, hay – 1.10, and cover – 1.87. | |
| 1  1.5  3  1.5 | Merry must go to the pet store! |
| 9  5  5.2  1 | Merry must go to the pet store! |