# Problem 1. Cloud Storage

Pesho wants to run his site in the cloud, but since he doesn't have an unlimited amount of money, he needs to **calculate** the amount of money the cloud solution will **cost** him. He needs **several servers**, **storage units** and **hosts**.

One **server** can support up to **50 concurrent users**. One storage unit can store **up to 500MB** of data.

One server costs **$2/hour**. One **storage unit** costs **$0.5/hour**. One **host** costs **$10/month**

Your task is to calculate whether Pesho can afford to run the website for an entire **month** given his own requirements.

Assume **every month** has **30 days**.

## Input / Constraints

The input data should be read from the console. It will consist of **exactly 5 lines**.

* Pesho’s **monthly budget** – **floating-point** number in the **range [0-25000]**
* The **number** of **concurrent clients** he needs to support – **integer** number in the **range [0-800]**
* The **gigabytes of data** he needs to **store**– **integer** number in the **range [0-30]**
* The **number of hosts he needs for his site**– **integer** number in the **range [0-10]**
* The **expected uptime in percent**– **floating-point** number in the **range [0-100]**

The **input data will always be valid**. **There is no need to check it explicitly**.

## Output

The output should be printed on the console.

If Pesho has enough money to afford the server + storage + host combo, print:

* Clouds Ahoy! Monthly cost: $x.xx ($x.xx leftover)

If Pesho has enough money to afford the server + storage + host combo, print:

* Stay Grounded! Monthly cost: $x.xx (Need $x.xx more)

***Note: Format all prices to the 2nd decimal point.***

## Examples

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** | **Comments** |
| 9000  190  4  2  100 | Clouds Ahoy! Monthly cost: $8660.00 ($340.00 leftover) | **Servers** needed: 190 / 50 = 3.8 🡺 **4**  **Storage** needed: 4 / 0.5 🡺 **8**  **Hourly** cost: $2\*4 + $0.5\*8 🡺 $12/hour 🡺 **$288/day**  **Hosts** cost: 2 \* $10 🡺 **$20/month**  **Monthly** cost: $288 \* 30 🡺 **$8640/month**  **Total**: ($8640 + $20) \* 100% uptime 🡺 **$8660** |
| **Input** | **Output** | **Comments** |
| 3615.5  100  1  1  100 | Clouds Ahoy! Monthly cost: $3610.00 ($5.50 leftover) | **Servers** needed: 100 / 50 = 2 🡺 **2**  **Storage** needed: 1 / 0.5 🡺 **2**  **Hourly** cost: $2\*2 + $0.5\*2 🡺 $5/hour 🡺 **$120/day**  **Hosts** cost: 1 \* $10 🡺 **$10/month**  **Monthly** cost: $120 \* 30 🡺 **$3600/month**  **Total**: ($3600 + $10) \* 100% uptime 🡺 **$3610** |
| **Input** | **Output** | **Comments** |
| 24000  753  10  4  80 | Stay Grounded! Monthly cost: $24224.00 (Need $224.00 more) | **Servers** needed: 753 / 50 = 15.06 🡺 **16**  **Storage** needed: 10 / 0.5 🡺 **20**  **Hourly** cost: $2\*16 + $0.5\*20 🡺 $42/hour 🡺 **$1008/day**  **Hosts** cost: 4 \* $10 🡺 **$40/month**  **Monthly** cost: $1008 \* 30 🡺 **$30240/month**  **Total**: ($30240 + $40) \* 80% uptime 🡺 **$24224** |