# Problem 1 - Gift Box Coverage



Create a program that **calculates** what **percentage** you can cover of a **6-sided gift box (all sides are equal and square)**. **First**, you will **receive** the size of a side. Also, you will **receive** the **sheets** of paper you have - N. On the following N lines, you will receive how much **area** covers **every** **sheet** of paper.

First, you need to **calculate** the **area** of the **gift** **box**. Then you have to **calculate how much area** you can cover with the **paper available**. Keep in mind that every **third** **sheet** covers 25% less of the usual area, and **every fifth** sheet is crumpled, and you **cannot** **use** it. You have to calculate if the paper is **enough** to **cover** the **gift box**.

## Input

* On the **1st line,** you will receive the **size of a side** – a **real number** in the range **[0.0…100.0].**
* On the **2nd line,** you will receive the **number of** **sheets of paper** – an **integer number** in the range **[0…20].**
* For each sheet, you will receive the following information:
  + **length of a single sheet** of paper – a **real number** in the range **[0.0…100.0].**
  + **width of a single sheet** of paper – a **real number** in the range **[0.0…100.0].**
* The input will always be in the correct format.

## Output

* If the paper is enough to cover the gift box, print the **percentage** of **the area of all wrapping paper that is not used, formatted** to **the 2nd** decimal place in the format described below:

**"You've covered the gift box!**

**{percentage}% wrap paper left."**

* If there is not enough paper to cover the gift box, print the **percentage** of **the** **area which is not covered, formatted** to **the 2nd** decimal place in the format described below:

**"You are out of paper!**

**{percentage}% of the box is not covered."**

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 10  5  3  0.5  2.4  5  3.7  1  3  34.7  5  80 | You are out of paper!  79.94% of the box is not covered. |
| **Comments** | |
| The size of a side is **10**. We have **6** sides, so the area is **10 \* 10 \* 6 = 600**. We have **5** sheets of paper.  The area of the first sheet is **3 \* 0.5 = 1.5**  The area of the second sheet is **2.4 \* 5 = 12**  The area of the third sheet is **3.7 \* 1 – 25% = 2.775**  The area of the fourth sheet is **3 \* 34.7 = 104.1**  The fifth sheet is crumpled, and we do not use it. The total area covered is **(120.375 / 600) \* 100 = 20.06%** of the whole area. We need to cover **79.94%** more. | |
|  | |
| 2  2  0.2  7  6  8.5 | You've covered the gift box!  54.20% wrap paper left. |
| **Comments** | |
| The size of a side is **2**. We have 6 sides, so the area is **2 \* 2 \* 6 = 24.** We have **2** sheets of paper.  The area of the first sheet is **0.2 \* 7 = 1.4**  The area of the second sheet is **6 \* 8.5 = 51**  The size of area is **52.4**, which is enough to cover the gift box. We have **((52.4 - 24) / 52.4) \* 100 = 54.20%** paper left. | |

## JS Examples

The input will be provided as an **array of strings**.

|  |  |
| --- | --- |
| **Input** | **Output** |
| (["10",  "5",  "3",  "0.5",  "2.4",  "5",  "3.7",  "1",  "3",  "34.7",  "5",  "80"]) | You are out of paper!  79.94% of the box is not covered. |
| **Comments** | |
| The size of a side is **10**. We have **6** sides, so the area is **10 \* 10 \* 6 = 600**. We have **5** sheets of paper.  The area of the first sheet is **3 \* 0.5 = 1.5**  The area of the second sheet is **2.4 \* 5 = 12**  The area of the third sheet is **3.7 \* 1 – 25% = 2.775**  The area of the fourth sheet is **3 \* 34.7 = 104.1**  The fifth sheet is crumpled, and we do not use it. The total area covered is **(120.375 / 600) \* 100 = 20.06%** of the whole area. We need to cover **79.94%** more. | |
|  | |
| (["2",  "2",  "0.2",  "7",  "6",  "8.5"]) | You've covered the gift box!  54.20% wrap paper left. |
| **Comments** | |
| The size of a side is **2**. We have 6 sides, so the area is **2 \* 2 \* 6 = 24.** We have **2** sheets of paper.  The area of the first sheet is **0.2 \* 7 = 1.4**  The area of the second sheet is **6 \* 8.5 = 51**  The size of area is **52.4**, which is enough to cover the gift box. We have **((52.4 - 24) / 52.4) \* 100 = 54.20%** paper left. | |