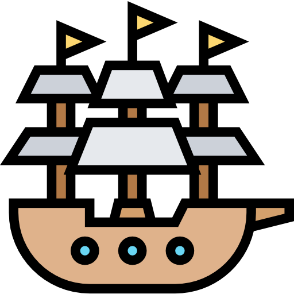
# Man-O-War



*The pirates encounter a huge Man-O-War at sea.*

Create a program that **tracks** the **battle** and either chooses a **winner** or prints a **stalemate**. On the **first line** you will receive the **status** of the **pirate ship**, which is a **string** representing **integer sections** separated by **'>'**. On **the second line** you will receive the **same** type of status, but for the **warship**:

**"{section1}>{section2}>{section3}… {sectionn}"**

On the **third line** you will receive the **maximum health capacity** a section of the ship can reach.

The following lines represent commands **until** **"Retire"**:

* **Fire {index} {damage} –** the pirate ship **attacks** the warship with the **given damage** at that section. Check if the **index is valid** and if not **skip** the command. If the section **breaks** (health <= 0) the warship **sinks**, print the following and **stop** the program:

**"You won! The enemy ship has sunken."**

* **Defend {startIndex} {endIndex} {damage} -** the warship **attacks** the pirate ship with the **given damage** at that **range** (**indexes are inclusive)**. Check if both **indexes are valid** and if not **skip** the command. If the section **breaks** (health <= 0) the pirate ship **sinks**, print the following and **stop** the program:

**"You lost! The pirate ship has sunken."**

* **Repair {index} {health} -** the crew **repairs** a section of the **pirate ship** with the **given health**. Check if the **index is valid** and if not **skip** the command. The health of the section **cannot** exceed the **maximum health capacity**.
* **Status –** prints the **count** of all sections of the **pirate ship** that need repair soon, which are all sections that are **lower than 20%** of the **maximum** **health capacity**. Print the following:

**"{count} sections need repair."**

In the end if a **stalemate** occurs print the **status** of **both** ships, which is the **sum** of their individual sections in the following format:

**"Pirate ship status: {pirateShipSum}"**

**"Warship status: {warshipSum}"**

## Input

* On the **1st line** you are going to receive the **status** of the **pirate ship** (**integers** separated by **'>'**)
* On the **2nd line** you are going to receive the **status** of the **warship**
* On the **3rd line** you are going receive the **maximum health** a section of a ship can reach.
* On the next **lines**, until **"Retire"**, you will be receiving commands.

## Output

* Print the output in the **format** **described** **above**.

## Constraints

* The **section numbers** will be integers in the range [**1**….**1000**]
* The **indexes** will be integers [**-200**….**200**]
* The **damage** will be an integer in the range [**1**….**1000**]
* The **health** will be an integer in the range [**1**….**1000**]

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 12>13>11>20>66  12>22>33>44>55>32>18  70  Fire 2 11  Fire 8 100  Defend 3 6 11  Defend 0 3 5  Repair 1 33  Status  Retire | 2 sections need repair.  Pirate ship status: 135  Warship status: 205 |
| **Comments** | |
| First, we receive the command "**Fire 2 11**" and damage the warship at section index 2 which is currently 33 and after reduction the status of the warship is the following:  **12 22 22 44 55 32 18**  The **second** and **third** command have **invalid indexes**, so we skip them.  The **fourth** command **"Defend 0 3 5"** damages **4 sections** of the pirate ship with **5** which results in the following status:  **7 8 6 15 66**  The **fifth** command **"Repair 1 33"** repairs the pirate ship section and adds **33 health** to the current **8** which results in **41**  Only **2 sections** of the pirate ship (**7** and **6**) need repair soon.  In the end there is a **stalemate,** so we print both ship statuses (**sum** of all sections). | |
| **Input Output** | |
| 2>3>4>5>2  6>7>8>9>10>11  20  Status  Fire 2 3  Defend 0 4 11  Repair 3 18  Retire | 3 sections need repair.  You lost! The pirate ship has sunken. |