# Programming Fundamentals Mid Exam Retake 07 April 2020

## Problem 1. Counter Strike

Write a program that **keeps track of every won** battle against an **enemy**. You will receive **initial energy**. Afterwards you will start receiving the **distance** you need to **go to reach an enemy** until the **"End of battle"** command is given, or until you **run out of energy.**

The **energy** you need for reaching an enemy is **equal to the distance you receive**. Each time you reach an enemy, your **energy is reduced.** This is considered a successful battle (**win**). If you don't have **enough energy** to reach an the enemy, print:

**"Not enough energy! Game ends with {count} won battles and {energy} energy"**

and **end the program.**

Every **third won battle** increases **your energy with the value of your current count of won battles**.

Upon receiving the **"End of battle"** command**,** print the **count of won battles** in the following format:

### "Won battles: {count}. Energy left: {energy}"

### Input / Constraints

* On the **first line** you will receive **initial energy** – an **integer [1-10000]**.
* On the **next lines,** you will be receiving **distance** of the enemy – an **integer** **[1-10000]**

### Output

* The description contains the proper output messages for each case and the format in which they   
  should be print.

### Examples

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** | **Comments** |
| 100  10  10  10  1  2  3  73  10 | Not enough energy! Game ends with 7 won battles and 0 energy | Initial energy is 100. The first distance is 10, so we subtract 10 from 100 and we consider this a **won** battle. We are left with 90 energy. Next distance – 10, and 80 energy left.  Next distance – 10, 3 won battles and 70 energy, but since we have 3 won battles, we increase the energy with the current count of won battle, in this case – **3 and it becomes 73**.  The last distance we receive – **10** is unreachalble since we have **0** energy, so we print the appropriate message and the program ends. |
| 200  54  14  28  13  End of battle | Won battles: 4. Energy left: 94 |  |

### JS Input / Output

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** | **Comments** |
| (["100",  "10",  "10",  "10",  "1",  "2",  "3",  "73",  "10"]) | Not enough energy! Game ends with 7 won battles and 0 energy | Initial energy is 100. The first distance is 10, so we subtract 10 from 100 and we consider this a **won** battle. We are left with 90 energy. Next distance – 10, and 80 energy left.  Next distance – 10, 3 won battles and 70 energy, but since we have 3 won battles, we increase the energy with the current count of won battle, in this case – **3 and it becomes 73**.  The last distance we receive – **10** is unreachalble since we have **0** energy, so we print the appropriate message and the program ends. |
| (["200",  "54",  "14",  "28",  "13",  "End of battle"]) | Won battles: 4. Energy left: 94 |  |