# 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 |  |

function counterStrike(input) {

    let wonBattle = 0;

    let health = Number(input.shift());

    for (const commands of input) {

        if (commands !== 'End of battle') {

            let energy = Number(commands);

            if (health - energy < 0) {

                console.log(`Not enough energy! Game ends with ${wonBattle} won battles and ${health} energy`);

                return;

            }

            health -= energy;

            wonBattle++;

        } else {

            console.log(`Won battles: ${wonBattle}. Energy left: ${health}`);

        }

        if (wonBattle % 3 === 0) {

            health += wonBattle;

        }

    }

}

counterStrike([`200,54,14,28,13,End of battle`])