

Problem 1 – Tiny Sporebat

Exploring Outland, you find yourself in the murky waters of Zangarmarsh. It's a fascinating land inhabited by mystical creatures. Perhaps the strangest of all are the sporelings – a nation of friendly mushroom-like people. They keep sporebats as pets – little cute flying thingies. You'd like to own one, but this will be a bit tricky – sporelings do not accept regular money, their currency is a special kind of mushroom called a **Glowcap**. Your task is to collect as many **Glowcaps** as possible and buy the desired pet. So you go out of their capital – **Sporeggar** – collecting **Glowcaps**.

The **Glowcaps** are represented as a **digit** at the **end** of a string. For instance, **abcdef9** means that there are **9** Glowcaps ready to be collected behind some enemies. The enemies are **abcdef**. To reach the Glowcaps, you must pass through those enemies. Each one of them does **damage** to you – equal to the ASCII value of the character. For example, '**a**' does **97 damage** to you. The only special character is **uppercase 'L'** – this is **Lifebloom**, healing you for **200 points**. Your starting health is **5800** points. If you pass through **all** the enemies, you collect the Glowcaps, and continue.

The game **ends** in two cases – you reach **Sporeggar**, or your health **drops** to **zero** or **below**. Reaching Sporeggar is described by the string **Sporeggar**, which also signifies the end of input. If your health drops to zero, you are **dead**.

If you reach **Sporeggar**, check if you **can buy the sporebat**. Its cost is **30 glowcaps**. There are three kinds of output:

- If you are well and alive in Sporeggar:
 - Print the remaining health: **"Health left: {h}"**, where **h** is the remaining health
 - If you can buy the sporebat: **"Bought the sporebat. Glowcaps left: {n}"**, where **n** is the number of remaining glowcaps
 - If you cannot buy it: **"Safe in Sporeggar, but another {n} Glowcaps needed."**, **n** is the number of additional glowcaps required
- If you die: **"Died. Glowcaps: {n}"**, **n** is the number of glowcaps collected.

Input

- Until the string **Sporeggar** is reached, you are given a series of strings – each with a number at the end

Output

- The output is according to the description above. Check the examples for further understanding.

Constraints

- The number of strings is in range [2 .. 50]
- The length of each string is [1 ... 20]. It can contain **ANY ASCII** character.
- The number of glowcaps is an integer in range [0 ... 9]
- Allowed memory: 16 MB
- Allowed time: 0.25s

Examples

Input	Output
Abcdef5 ^&^(8 J3 Sporeggar	Health left: 4853 Safe in Sporeggar, but another 14 Glowcaps needed.

Input	Output
Asdkha6 Ashdasjh9 A;sljajk9 A;slkdjad2 Lkdjgjjkj2 A;lksjdakjsd3 A;lksjd6 Sporeggar	Health left: 299 Bought the sporebat. Glowcaps left: 7

Input	Output
zyzyxyzzyzyzzzzxxz5 zyzh;lakja;kldjaksjdak1 Klasdhasdajksdjasjdjasd2 Sporeggar	Died. Glowcaps: 6