Problem 3. Cooking Factory

The George`s Cooking factory got another order. But this time you are tasked to bake **the best Bread for a special party**.

Until you receive a command "Bake it!" you will be receiving strings, the batches of bread. Each string is an **array of numbers, split by "#".** Each element is a **bread and the number represent its quality.**

You should select the batch with the **highest total quality of bread**.

If there are several batches with **same total quality** select the batch with the **greater average quality.**

If there are several batches with same **total quality and average quality, take** the one with the **fewest elements (length)**.

Input / Constraints

- Until you receive a command "Bake it!" you will be receiving strings, the batches of bread. Each string is an **array of numbers, split by "#".** Each element is a **bread and the number represent its quality.**
- Each batch will have from 1 to 10 elements.
- Bread quality is an integer in the range [-100, 100].

Output

- After you receive the last command **`"Bake It!"`** you should print the following message:

  `"Best Batch quality: {bestTotalQuality}"`

  `"{bread batch, joined by space}"`

Examples

Input	Output	Comments
5#4#10#-2 10#5#2#3#2 Bake It!	Best Batch quality: 22 10 5 2 3 2	We receive 2 batches, but the second is printed, because its total quality is better**.**
Input	**Output**	**Comments**
5#3#2 10#2#-2#1#-1 4#2#1 Bake It!	Best Batch quality: 10 5 3 2	We receive 3 sequences. Both 1 and 2 **have same total quality** -> 10, but the first is printed, because its **has better average quality 3.(333).**

... Kaminoans: Diet – unknown ...