Problem H – Husbands association

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Husbands association is a non profit association intended to help them to have a better relationship with their partners. They have been studying how their partners react to different problems and discussions that are brought to conversation, first step was to have a conversation in the first place!. It seems like the partner has a level of tolerance T, and each problem reduces the tolerance of the partner in a_i units; if the tolerance of the partner reaches 0 then the problem is magnified and the husband will feel bad for the rest of the week. For example, let's say the tolerance of Mrs E. is 10, and Mr E. can bring five different problems, not doing the dishes takes 3 tolerance, doing the dishes takes 2, not taking trash out takes 5 tolerance, not dinning in a restaurant a night a week takes 1, and not bringing flowers in the anniversary takes 8.

Husbands association wants to build a software that helps husbands to determine the order of the problems to discuss without reaching the partner tolerance to 0, they have two strategies. The first one is to talk about the problem that takes more tolerance from the partner and keep doing this withouth reaching the partner tolerance to 0. The other approach is to talk about the problems that takes the lower number of tolerance so they can take more problems without bringing tolerance to 0.

Can you help the Husbands association to determine the maximum number of problems that can be discussed by the husband and his partner in both approaches?

Input

The first line of input contains two numbers separated by a space N and T ($1 \leq N \leq 10^5$, $1 \leq T \leq 10^6$), representing the number of problems and the tolerance of the partner, respectively. The next line contains N integer numbers between 1 and 10^5, representing the tolerance each problem takes from the partner.

Output

Output a single line with two integer numbers separated by a space, the first being the maximum number of problems the husband can discuss with his partner using the first approach described, the second is the maximum number of problems the husband can discuss with his partner using the second approach from the association.

Sample input 1	Sample output 1
5 10 3 2 4 1 8	2 3