Magical Wallet

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	1024 megabytes

You have a magical wallet with X yen in it. (Yen is the currency of Japan.)

Using the magic on this wallet, you can rearrange the amount of money in the wallet as a decimal string in any order you like. For example, if you have a magical wallet with 120 yen, you can use magic to change the amount of money in the wallet to any of the following: 12 yen, 21 yen, 102 yen, 120 yen, 201 yen, or 210 yen (leading zeros are ignored).

You will now visit N shops with the magical wallet **in order**. At the i-th shop ($1 \leq i \leq N$), a product costing A_i yen is sold, and if the magical wallet contains at least A_i yen, you can pay A_i yen from the magical wallet to buy the product.

You can use magic as much as you like whenever you want. How many products can you buy at most?

Input

The input is given from Standard Input in the following format:

N X
A_1 A_2 $\cdots$ A_N

- All values in the input are integers.
- $1 \leq N \leq 100$
- $1 \leq X < 10^4$
- $1 \leq A_i < 10^4$ $(1 \leq i \leq N)$

Output

Print the answer.

Examples

standard input	standard output
2 120 142 90	2
1 119 911	1
5 1000 900 90 900 9 900	3
7 1171 6328 2419 8302 7503 1744 8495 1522	5

Note

In the first sample, you can buy two products by doing the following:

1. Use magic to change the amount of money in the wallet from 120 yen to 201 yen.
2. Buy a product for 142 yen at the first shop. The amount of money in the wallet becomes $201 - 142 = 59$ yen.

3. Use magic to change the amount of money in the wallet from 59 yen to 95 yen.
4. Buy a product for 90 yen at the second shop. The amount of money in the wallet becomes $95-90=5$ yen.