

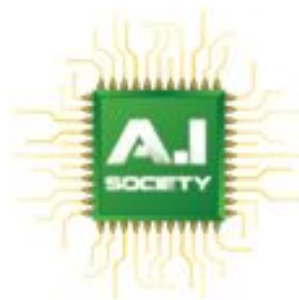


(Mock Contest)

PROGRAMMING CONTEST PROBLEM SET

This mock problem set contains 5 problems
(A-E)

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Hosted by
Artificial Intelligence Society
Faculty of Computer and Mathematical
Sciences
Universiti Teknologi MARA Shah Alam

A. Strings to the Graph

Time Limit: 1s

Abu teaches his son Zack to count every character in each word, but Zack refuse to learn because he doesn't like numbers. Since Abu knows that his son loves "Twinkle-twinkle little star" song, so he decided to change from count every character to count every stars (asterisk). But what is the relation with the stars and characters? Nothing.

So here is the example:

"Twinkle twinkle little star"

The following graph will be plotted.

The number of rows equal to the number of words in the sentence.

Input

The first line contains the number of test cases. Each line on a test case contains a sentence of not more than 6 words. The sentence must ends with a comma. The input only cover [a-zA-Z0-9] only.

Output

The graph for each dataset is printed separated with a blank line.

Sample input	Sample output
3 Twinkle twinkle little star , Hi my name is Zarul Izham , Artificial Intelligence Society ,	***** ***** ***** **** ** ** **** ** ***** ***** ***** ***** *****

B. Trailing Sifar

Time Limit: 1s

Sifar is a Malay word for zero or 0. In mathematics, trailing sifar is a sequence of 0s in the decimal representation of a number after which no other digits follow. The number of trailing sifar in the decimal representation of $N!$ ($5 \leq N \leq 1,000,000$) is simply the multiplicity of the prime factor 5 in $N!$. Given a decimal integer N , you are to find the number of trailing sifar for $N!$ For example, $10! = 3,628,800$. Thus, the number of trailing sifar for $10!$ is 2.

Input

The first line of the input contains the number of test cases. Followed by integer input contains an integer N where $5 \leq N \leq 1,000,000$.

Output

For each test case, the output the number of trailing sifar for $N!$

Sample Input	Sample Output
3	Case 1: 1
5	Case 2: 2
10	Case 3: 27
118	

C. Zrog's the Judge

Time Limit: 1s

Representative of Zrog's country didn't do too well in this Olympics, the Olympics Committee of the respective country was very unhappy about it. They decided to do a very thorough talent search in the country for the next Olympics and train them further, every willing participant had to submit their height, weight and the length they can go in one jump. As all these parameters included numbers and only Zrog was known to be good with numbers, they gave him the responsibility to order the list of participants based on these numbers. Zrog decided, height takes precedence over weight and weight takes precedence over the length of one jump. Also, more height, less weight and longer jump distances are the priority factor. In case all of these are identical for two participants, they will be chosen in the order entered in the list, first come first serve. Now, as the number of participants is very large, Zrog wants you to help him by writing a program which will order the list according to the above rules.

Input

The first input is an integer n ($1 \leq n \leq 100000$). The following n lines each contains three doubles h ($0 < h \leq 100$), w ($0 < w \leq 100$) and l ($0 < l \leq 100$) denoting the height, weight and jump length respectively

Output

Print out all the n lines in the correct order according to the rules, the numbers should be until 2 decimal points. Check sample output for correct output format.

Sample Input	Sample Output
4	ID:2 H:9.11 W:11.90 L:1.19
4.20 4.20 2.10	ID:4 H:9.11 W:91.10 L:0.19
9.11 11.90 1.19	ID:1 H:4.20 W:4.20 L:2.10
4.20 4.20 2.00	ID:3 H:4.20 W:4.20 L:2.00
9.11 91.10 0.19	

D. Easy-Peasy Lemon Squeezy

Time Limit: 1s

This is a very easy question, indeed.

Input

The first line contains T ($1 \leq T \leq 100$), the amount of test case(s).

The following T lines contains A , B ($1 \leq A < B \leq 5000$) and S ($1 \leq S \leq B-A$) integers.

Output

Output the numbers sequence between A and B (inclusive), with S step(s), with the number sequence should be separated by a single space.

Each answer should be separated by a newline.

Sample Input	Sample Output
3 1 2 1 1 10 2 99 100 2	1 2 1 3 5 7 9 99

E. Counting

Time Limit: 1s

Give a statement, count how many time the word occurrences inside the string.

Input

The first line contains S , an English statement.

The next line contains T ($1 \leq T \leq 100$), the amount of test case(s).

The following T lines a word that you need to find the occurrences.

Output

Output the number word occurrences inside the string.

Sample Input	Sample Output
hello hello abc hi ais kacang hi	2
3	2
hello	1
hi	
kacang	

END OF
MOCK
PROBLEM SET