Browsing History

One day when you are going to clear all your browsing history, you come up with an idea: You want to figure out what your most valued site is. Every site is given a value which equals to sum of ASCII values of all characters in the URL. for example aa.cc has value of 438 because 438 = 97+97+46+99+99. You just need to print the largest value amongst all values of sites.

Things are simplified because you found that all entries in your browsing history are of the following format:[domain] (quotes for clarify) where [domain] consists of lower-case latin letters and '.' only. You can see the sample for more details.

Input

There are several test cases, please process till EOF. Each test case starts with a line of a integer n ($1 \le n \le 100$), the number of entries in your browsing history. Then follows n lines, each consisting of one url whose length will not exceed 100.

Output

For each case please print one line containing the answer to corresponding test case. Please see the sample output for detailed format.

Example

Input:

1 aa.cc 2 www.google.com www.wikipedia.org

Output:

Case 1: 438 Case 2: 1728