
Count Letters

Input file: **standard input**
Output file: **standard output**
Time limit: 2 seconds
Memory limit: 64 megabytes

Given a string S . Determine how many times does each letter **occurred** in S .

Input

Only one line contains the string S ($1 \leq |S| \leq 10^7$) where $|S|$ is the length of the string and it consists of only **lowercase** English letters.

Output

For each character that appears in S , print a single line that contains the following format: " $X : Y$ " where X is the letter and Y is the number of times that letter X occurred in S .

Note: you must print letters in **ascending** order.

Examples

standard input	standard output
aaabbc	a : 3 b : 2 c : 1
regff	e : 1 f : 2 g : 1 r : 1