

Frequency

Jojo loves to give Bibi array of character. Because Bibi loves to make various of sentences, every array of character is divided into a single character. Now after dividing the array of character, Bibi is confuses because there are too many word. Help Bibi by printing the total of each character (Case insensitive = Upper Case and Lower Case are treated the same).

Format Input

The input will consist of several lines contains a lot of numbers in **testdata.in** file. Input starts with an integer T which indicates the total of testcase. The next T line consists multiple array of character. Multiple array length does not exceed 1000 characters and the characters only contain uppercase and lowercase letter.

Format Output

Output "Case #%d:" with 6 line total of each character with some formating (Character in Upper Case: total). Dont forget to print newline after testcase. Please refer the sample output for clarity.

Constraints

1 <= T <= 10

Sample Input (testdata.in)	Sample Output (standard output)
3 ABCDE FGHIJ KLMNO PQRST UVWXYZ abcdefghij klmnopqrst uvwxyz AaBbCcDdEe FfGgHhIiJj	Case #1: A: 1, B: 1, C: 1, D: 1, E: 1 F: 1, G: 1, H: 1, I: 1, J: 1 K: 1, L: 1, M: 1, N: 1, O: 1 P: 1, Q: 1, R: 1, S: 1, T: 1 U: 1, V: 1, W: 1, X: 1, Y: 1 Z: 1
	Case #2: A: 1, B: 1, C: 1, D: 1, E: 1 F: 1, G: 1, H: 1, I: 1, J: 1 K: 1, L: 1, M: 1, N: 1, O: 1 P: 1, Q: 1, R: 1, S: 1, T: 1 U: 1, V: 1, W: 1, X: 1, Y: 1 Z: 1
	Case #3: A: 2, B: 2, C: 2, D: 2, E: 2 F: 2, G: 2, H: 2, I: 2, J: 2 K: 0, L: 0, M: 0, N: 0, O: 0 P: 0, Q: 0, R: 0, S: 0, T: 0 U: 0, V: 0, W: 0, X: 0, Y: 0 Z: 0

Hint

A is equal to 0 + 'A' and careful of Space Character.