

Programming assignment 10

Huffman code

Input (Standard input)

In the first line, an integer N is given which means the number of character

($1 \leq N \leq 30000$).

Next each N line, character and number of character are given.

(Length of character is always 4)

Last line, an integer S is given which mean total number of character in text

Output (Standard output)

In the first line, print the number of bits using fixed-length code

In the next line, print the number of bits using Huffman code

[Example]

Sample Input	Sample Output
6 ffff 5000 eeee 9000 cccc 12000 bbbb 13000 dddd 16000 aaaa 45000 100000	300000 224000

Description

1. File name must be Huffman.cpp
2. Make a comment of your student ID, name and class in the first line of the source code.
ex) 2014601028_Honggildong_A
3. Please keep the source code that you have submitted for some unexpected accident.