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

$(1 \leq S \leq 30000)$

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	300000
ffff 5000	224000
eeee 9000	
cccc 12000	
bbbb 13000	
dddd 16000	
aaaa 45000	
100000	

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.