9. Profit

Program Name: Profit.java   Input File: profit.dat

Before computers, the price tag on items at local stores frequently had a set of letters as well as the price the owner wished to charge his customer for each item. The set of letters was a net cost code that represented the owner's net cost of the item.

You will be given the string of unique alphabetic characters that the owner used on the price tag to code his net cost in pennies, The code will contain 10 consecutive uppercase letters of the alphabet that will represent the code for the digits 0 through 9 in that order. For example, the code ABCDEFGHIJ would mean A=0, B=1, C=2, ... , J=9 and on the price tag, a code of DECJ would stand for $34.29. Additionally, you will be given the price of the item in dollars and cents, including the dollar ($) sign.

You are to write a program that will find the amount of profit the owner will make on a variety of purchases for different customers.

Input
The first line of input will contain a single integer `n` that indicates the number of customers to follow. For each customer, the first line will contain the ten-character code to be used for the net profit, a space, the customer's first name, a space, and a single integer `m` that indicates the number of items the customer bought. The next `m` lines will each contain the item's net cost code followed by a space and the price of the item.

Output
For each customer, you will print the customer's first name, a space, and the amount of profit the owner made on that customer's purchases. The profit should contain a dollar sign, no leading zeroes, and be correct to the nearest penny.

Example Input File
```
2
ABCDEFGHIJ Jerry 3
DECJ $39.00
ABC $2.01
CFIF $32.79
GUSOCPRTWD Tom 2
PTCSO $679.35
WUG $10.29
```

Example Output to Screen
```
Jerry $13.54
Tom $107.31
```