Assignment 1

Baoneng City plans to cooperate with SUSTech and now invites you to join us in the development of the "self-ordering system". The requirements you receive are as follows:

1. When using the system, the user is required to input user name and student id. If the student id is not 8-digit or the prefix number is not 115 to 120, the system will display the wrong id, otherwise, the system will display:

```
Xiaoming, welcome to Baoneng City!
```

Xiaoming is the user name.

Samples:

Input1: Read in using Scanner:

```
Xiaoming 12010101
```

Output1:

```
Xiaoming, welcome to Baoneng City!
```

Input2: Read in using Scanner:

```
Xiaoming 1201010
```

Output2:

```
1201010
```

2. Today, you want to go to Baoneng City for lunch, but you just come here and don't know the road, so you use a map to navigate. In order to simplify the problem, assume that you are at the coordinates (a, b) at the beginning, "`a`" represents one step to the left (from position (a, b) to (a-1, b)), "`w`" represents one step upward (from (a, b) to (a, b+1)), and "`s`" means down, "`d`" means to the right. Given the initial position (a, b) and navigation path, for example (asdwa). Please calculate your final position.

The coordinates (a, b) are two integers.

Samples:

Input: Read in using Scanner

End with the symbol "`E`"

```
0 0
a
s
d
E
```

Output:

```
0 -1
```

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3. Calculate the eating time of users from the beginning to queue up to finish. The beginning and end time will be passed in "`hh mm ss`" format. The three numbers are separated by spaces. Output is in "`xx`m`xx`s" format.

Sample:

Input1: Read in using Scanner

```
12 30 20
12 35 26
```

Output1:

```
5m6s
```

Input2: Read in using Scanner

```
12 30 40
12 55 40
```

Output2:

```
25m
```

Input3: Read in using Scanner:

```
12 30 40
12 30 40
```

Output3:

```
0s
```

(The beginning and end time won't be across a day and the end time is not earlier than beginning time. If the minute and second both equal 0, then print "0s"; if one of them equals 0, then only print the other like "80m", "52s")

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4. Make a user vip system: Grade the user according to the number and cost of consumptions.

1. When the number of user consumptions is not less than `10` times and the cumulative amount is not less than `3000`, or a single amount is not less than `5000`, the user will be a `Diamond` VIP customer.
2. When the number of user consumptions is not less than `5` times and the cumulative amount is not less than `2000`, or a single amount is not less than `3000`, the user will be a `Gold` VIP customer.
3. When the number of user consumptions is not less than `3` times and the cumulative amount is not less than `1000`, or a single amount is not less than `1500`, the user will be a `Silver` VIP customer.
4. If the user is not a VIP customer, output `Ordinary`.

Input:

The first line of input is the number of user consumptions T.
The second line contains T integers which are the amounts of each consumptions.

Output:

The VIP level of user

Sample:

Input1: Read in using Scanner

```
4
200 300 400 500
```

Output1:

```
Silver
```

Input2: Read in using Scanner

```
5
200 300 400 500 600
```

Output2:

```
Gold
```

Input3: Read in using Scanner

```
3
100 100 100
```

Output3:

```
Ordinary
```

---

5. Calculate the total cost according to the order list.

1.If user is a `Ordinary` customer, he can not get a discount.

2.If user is a `Silver` customer, he can get a 10% discount.

3.If user is a `Gold` customer, he can get a 20% discount.

4.If user is a `Diamond` customer, he can get a 30% discount.

You should round the total cost by only **one decimal**.

All Inputs in OJ are valid.

Input:

The first line of input is the number of dish types and the VIP level of user.
For each type of dish, there are one floating point number and one integer in one line, showing the price and number of dish.

Output:

The total cost.

Sample:

Input1: Read in using Scanner

```
4 Ordinary
39.9 1
9.9 2
25 1
4.5 3
```

Output1:

```
98.2
```

Input2: Read in using Scanner

```
4 Diamond
39.9 1
9.9 2
25 1
4.5 3
```

Output2:

```
68.7
```

Input3: Read in using Scanner

```
4 Gold
39.9 1
9.9 2
25 1
4.5 3
```

Output3:

```
78.6
```