

College Fine Dining



So if you haven't heard already, Gordon Ramsay has just recently decided to drop being a multi-Michelin star chef/restaurant manager/TV show star/celebrity/restauranteur/father in favor of pursuing his dream of being a UPE member at RPI. Gordon, like any good college student, is trying to eat on a super tight budget. But having come straight from the food industry, Gordon can't just stomach ordinary foods -- he needs to make sure that his meals represent all of the different types of flavor that exist: salty, sweet, bitter, sour, spicy and umami.

Here's your job: given a list of foods, their prices and the flavors that they bring to the table, you need to output the lowest cost of the smallest group of these foods that cover the entirety of the flavor spectrum.

Input Format

The input will consist of:

```
<name of food>,<dollar amount to 2 decimal places>:<comma separated list of flavors contained in food>  
<name of food>, ...
```

Constraints

Flavor types will only appear once in a flavor list. Name of food will always be alphanumeric, but may include spaces.

Output Format

The output will simply be the cost of the optimal smallest group to 2 decimal places.

e.g.

```
3.61
```

Sample Input 0

```
Ramen with peanut butter,1.50:salty,sweet  
Chicken nugget and anchovy pizza,12.00:sweet,umami,bitter,sour  
Caviar on soggy bread,100.00:umami,bitter,sweet  
Ghost pepper scrambled eggs,3.50:spicy
```

Sample Output 0

```
17.00
```

Explanation 0

(Ramen with peanut butter Chicken nugget and anchovy pizza Ghost pepper scrambled eggs)