Ice Cream Sales

Write a program that reads the price of the ice creams, followed by sales of various products in the shop, to find and display the total sales of ice cream as well as the top-selling ice cream brand.

Input

First line is an integer **N**.

The following **N** lines are the price of each type of ice cream, comprised of the ice cream name and price (real number). Separated with spaces, one type for each line.

The line **N+2** is an integer **M**.

The following **M** lines are the product sales, comprised of product name and the amount that got sold. Separated with spaces, one line each.

Output

If there are no ice cream sales, display **No ice cream sales**

If there are ice cream sales, find and display the total ice cream sales for the first line. Then follows with the ice cream with top sales in another line. If there is more than one ice cream with top sales, displays the names sorted alphabetically. (See the example)

Example

Input (from keyboard)	Output (on screen)
5 Magnum 50 Cornetto 25 PaddlePop 15 AsianDelight 20 Calippo 15 3 Cookie 20 MamaTomYum 3 MangoSheet 10	No ice cream sales
5 Magnum 50 Cornetto 25 PaddlePop 15 AsianDelight 20 Calippo 15 6 Magnum 5 Magnum 5 Cookie 20 MamaTomYum 3 Cornetto 20 AsianDelight 1	Total ice cream sales: 1020.0 Top sales: Cornetto, Magnum