Ice Cream Sales

Write a program to read the prices of different ice creams followed by the sales of various items in the store. The program should calculate and display the total sales of ice creams and the type of ice cream with the highest sales.

Input

The first line is an integer **N**.

The next **N** lines contain the sales prices of ice creams, consisting of the ice cream name followed by the price (a floating-point number) separated by a space.

Line **N+2** is an integer **M**.

The following **M** lines contain the sales data, consisting of the product name followed by the quantity sold, separated by a space.

Output

If no ice cream is sold, display the message `No ice cream sales`.

If ice cream is sold, calculate and display the total ice cream sales on one line, followed by the names of the ice creams with the highest sales on the next line. If there are multiple names, display them in alphabetical order (refer to the format shown in 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