Problem C Fishmongers

You fish fish.

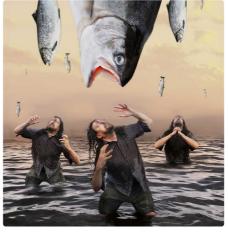
You hate fish.

You love monies.

Therefore sell fish.

To fishmongers.

For maximum profit.



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Input

The first line of input contains two integers n ($1 \le n \le 100\,000$), the number of fish you have to sell, and m ($1 \le m \le 100\,000$), the number of fishmongers. On the second line follows n space-separated integers w_1, w_2, \ldots, w_n , the weight of each of your fish in kilograms (

 $1 \le w_i \le 100\,000$). Finally, there are m lines, the j'th of which consisting of two integers x_j ($1 \le x_j \le 100\,000$) and p_j ($1 \le p_j \le 100\,000$), respectively indicating how many fish the j'th fishmonger wants to buy and how many monies he will pay per kilogram.

Output

A single integer, the maximum number of monies you can obtain by selling your fish to the fishmongers.

Sample Input 1

Sample Output 1

4 3			
1 2 7 5			
2 4			
1 5			
3 3			

66	

Problem ID: fishmonger **CPU Time limit:** 1 secor **Memory limit:** 1024 ME

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