

Problem F

Fishmongers

Problem ID: 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 ($1 \leq n \leq 100\,000$), the number of fish you have to sell, and m ($1 \leq m \leq 100\,000$), the number of fishmongers. On the second line follows n space-separated integers $w_1, w_2, \dots, w_n$, the weight of each of your fish in kilograms ($1 \leq w_i \leq 100\,000$). Finally, there are m lines, the j 'th of which consisting of two integers x_j ($1 \leq x_j \leq 100\,000$) and p_j ($1 \leq p_j \leq 100\,000$), 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

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

Sample Output 1

```
66
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