



Problem A Buffet

Time limit: 1 second
Memory limit: 2048 megabytes

Problem Description

You are at a high-end buffet restaurant with a wide variety of dishes, **each dish is available in only one portion**. Each dish has two associated values:

- **Satiety Value:** The amount of satiety (fullness) the dish provides.
- **Satisfaction Value:** The enjoyment or satisfaction you derive from the dish.

However, since your appetite is limited, if the total satiety value of all eaten dishes exceeds your satiety limit, you will get full. To avoid wastage, you decided to use only k plates to hold the dishes. Each plate has several slots, and it is known that the i -th plate has w_i slots. Each slot on a plate can hold only one dish. When serving, it is not necessary to fill all the slots on a plate with dishes.

You wonder what the maximum satisfaction you can achieve is before getting full, using at most k plates to hold the dishes.

Input Format

The first line of input contains three integers n , m , and k , representing the number of dishes, the satiety limit, and the number of plates, respectively. The next n lines each contain two integers a_i and b_i , representing the satiety value and satisfaction value of the i -th dish. The last line contains k integers w_i , representing the number of slots on the i -th plate.

Output Format

Output the maximum satisfaction you can achieve using at most k plates to hold the dishes before getting full.

Technical Specification

- $1 \leq n \leq 50, 1 \leq m \leq 1000$
- $1 \leq k \leq 50$
- $1 \leq a_i \leq 500, 1 \leq b_i \leq 10^9$
- $1 \leq w_i \leq 10, \forall i \in [1, n]$

Sample Input 1

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3 9 1
2 4
3 5
```



4 6

2

Sample Output 1

11

Sample Input 2

3 6 2

2 4

3 5

4 6

2 1

Sample Output 2

10