

Coding Arena



A B C D E F

Problem : Pizza Delivery Services

Alok has started Pizza delivery services. To attract the customers he has introduced new "Combo Offer" schemes. Every combo will contain certain number of pizzas and the customers have to pay as per the combo rates. More formally, Alok has introduced a total of X combo offers. x_j combo offer will contain z_j pizzas and will cost c_j rupees, where j takes value $\{1 \text{ to } X\}$

Raj is planning to give a birthday treat to his N friends. He requested all of his friends to let him know how many pizzas each one would like to order. Raj is aware of the combo offers at Alok's Pizza joint. Raj wants to optimize the bill such that requisite amount of pizzas are available at least cost. Help Raj find out his maximum savings. Maximum savings is the difference in cost between most optimal order and least optimal order.

Note:

Assume that there exists an unlimited supply of pizzas with the combos as mentioned above.

Input Format:

First line of input will consist of T Test cases. Each test case will consist of four parts, viz.

1. Number of Combos (X) and Number of Friends (N)
2. Combo Vector (Z) i.e. number of pizzas in each combo (comprising of X elements delimited by space)
3. Price Vector (C) i.e. cost of each combo (comprising of X elements delimited by space)
4. Demand Vector i.e. how many pizzas each friend would like to have (comprising of N elements delimited by space)

Output Format:

Print the total cost that Raj can save.

Constraints:

$$1 \leq T \leq 10$$

$$1 \leq X \leq 500$$

$$1 \leq N \leq 500$$

$$1 \leq c_j \leq 200$$

$$1 \leq z_j \leq 200$$

Sample Input and Output

SNo.	Input	Output
1	1 3 4 1 2 3 3 5 7 1 2 3 4	6

Note:

Please do not use package and namespace in your code. For object oriented languages your code should be written in one class.

Note:

Participants submitting solutions in C language should not use functions from `<conio.h>` / `<process.h>` as these files do not exist in gcc

Note:

For C and C++, return type of main() function should be int.

Submit Answer

☐ I, **DEVEENA JAIN** confirm that the answer submitted is my own.