Shopkeeper's Dilemma

Avishkar is a shopkeeper. He sells jellies, chocolates and chewing gums each of ***P***, ***Q*** and ***R*** different types respectively. One day, there was no customer in his shop. He started playing out a game to somehow keep him engaged. The game he played was as follows:

- First, he counted the number of chocolates for each of the ***Q*** types.
- Then, he continued the same for jellies and chewing gums for ***P*** and ***R*** different types respectively.
- After that, he started forming triplets in the follwing way:
  - Then he picked up a type of jelly from the ***P*** types he had. Then he picked the count of that selected jelly type and called it ***J***.
  - He picked up a type of chocolate from the ***Q*** types he had. Then he picked the count of that selected chocolate type and called it ***C***.
  - Then he picked up a type of chewing gum from the ***R*** types he had. Then he picked the count of that selected chewing gum type and called it ***G***.
  - Then he started forming triplets ***(J, C, G)*** and continued the process until there were no triplets left.
- Then for all the triplets, he calculated the value of **interestingFunction()** and added them.

```
int interestingFunction(J,C,G) {
 if(J <= C and C>=G)
    return (C+J)*(G+C)
 else
    return zero;
}
```

After adding values of **interestingFunction()** for all triplets, he reached his final answer.

He became so much fascinated by the calculation that he wants to repeat the process every day. That particular day was free for Avishkar because of no customers otherwise he remains very busy. Now Avishkar needs your help as he does not want to do all the above calculation everyday. Please help him in finding the answer.

The answer can be a very large number. So you have to give the answer by doing modulo 1000000007.

Input Format

- The first line contains a single integer, ***T***, which is the number of test cases. The description of each testcase follows:
  - The first line of each testcase contains 3 integers: ***P***, ***Q*** and ***R***. These denote the types of jellies, chocolates and chewing gums respectively.
  - The second line contains ***P*** integers, which denote count of jellies of each type.
  - The third line contains ***Q*** integers, which denote count of chocolates of each type.
  - The fourth line contains ***R*** integers, which denote count of chewing gums of each type.

Constraints

- $1 \leq T \leq 10$
- $1 \leq P, Q, R \leq 100000$
- $1 \leq$ count of every type ≤ 1000000000

Output Format

- Output the interesting final answer modulo 1000000007 for each test case in a new line.

Sample Input 0

```
1
2 1 3
1 2
3
3 3 4
```

Sample Output 0

```
108
```

Explanation 0

Six Triplets

(1+3)*(3+3) value = 24

(1+3)*(3+3) value = 24

(1+3)*(3+4) value = 0

(2+3)*(3+3) value = 30

(2+3)*(3+3) value = 30

(2+3)*(3+4) value = 0

Final answer = 24 + 24 + 0 + 30 + 30 + 0 = 108 % 1000000007 = 108