Luminescia and Sylvantasia

In the mystical realms of Eldoria, Luminescia and Sylvantasia stand as two magical realms, each harboring enchanting forests inhabited by extraordinary creatures. Both realms have equal number of cities in them. In these realms lies in a network of bidirectional teleportation paths connecting cities within each realm, allowing the creatures to teleport within each realm requiring certain magical energy required for each path. However, a more extraordinary means of travel exists - the ethereal teleportation portals that transcend the boundaries between Luminescia and Sylvantasia.
You find yourself entrusted with two arrays, `luminescentEnergy` and `sylvanEnergy`, representing the magical energies of cities in Luminescia and Sylvantasia. These energies are crucial for teleportation between specific cities in the two realms. Each route between the cities is associated with a unique cost, calculated by multiplying the magical energies of the city in Luminescia with that of the city in Sylvantasia. However, this mystical journey is subject to certain conditions while travelling from city **i in Luminescia to city j in Sylvantasia**:

- The index j of city in Sylvantasia must be a multiple of index i of city in Luminescia for compatibility with the teleportation portals.
- Teleportation occurs unidirectionally, ensuring a one-way journey from Luminescia to Sylvantasia.

Your quest is to determine the **minimum magical energy required to transport a creature from a city x in Luminescia to city y in Sylvantasia.** If it is not possible to transport the creature output -1.

Input Format

- First line contains an integer **T**, the number of test cases.
- The first line of each test case contains 2 integers **N,M** seperated by a space representing the number of cities and teleportation paths respectively.
- The next line contains **N** integers space-seperated by a space representing the array **A**.
- The next line contains **N** integers space-seperated by a space representing the array **B**.
- The next **M** lines of each test case contains 3 space-seperated integers **X, Y, Z** representing a bidirectional road from city **X** to city **Y** of Luminescia and it requires a energy **Z** to teleport.
- The next **M** lines of each test case contains 3 space-seperated integers **X, Y, Z** representing a bidirectional road from city **X** to city **Y** of Sylvantasia and it requires a energy **Z** to teleport.
- The next line of each test case contains 2 space-seperated integers **x, y** which are start and end point in Luminescia and Sylvantasia respectively.
- It is guaranteed that there are no self loops or multiple edges in the graphs.

Constraints

$1 \leq T \leq 2*10^5$
$3 \leq N \leq 4*10^5$
$1 \leq M \leq 4*10^5$
$1 \leq A[i] \leq 10^9$

$1 \leq B[i] \leq 10^9$
$1 \leq X, Y \leq N, 1 \leq Z \leq 10^9$
$1 \leq x, y \leq N$
Also it's guaranteed that the sum of N, M over all test cases dosen't exceed $4*10^5$
Output Format

For each testcase, output an integer, **the minimum magical energy required to travel from city x in Luminescia to city y in Sylvantasia.** Or print -1 if it's an incompatible connection in a new line.

Sample Input 0

```
3
5 7
1 2 3 4 5
10 9 8 7 6
1 2 1
1 3 3
1 4 10
1 5 5
2 5 4
2 4 2
3 4 3
1 5 1
2 4 2
2 5 1
3 1 3
3 2 4
3 4 5
3 5 1
4 5
3 2
1 1 1
1 1 1
1 2 1
2 3 1
1 3 1
2 1 1
2 3
4 2
1 1 1 1
1 1 1 1
1 2 1
1 4 1
1 2 1
1 4 1
3 4
```

Sample Output 0

```
9
2
-1
```

Explanation 0

- For test case 1: one possible path to go from city 4 of Luminescia to city 5 of Sylvantasia is as follows :
Go from city 4 to city 2 of Luminescia by incurring a cost of 2
Then go from city 2 to city 1 of Luminescia by incurring a cost of 1
Then go from city 1 Luminescia to city 5 of Sylvantasia incurring a cost of A[i]*B[5]=1*6 = 6 (here 5 is a multiple of 1, so the teleportation is possible)

Total cost is 2+1+6 = 9, and it can be proved that this is the minimum cost required to go from city 4 of Luminescia to city 5 of Sylvantasia

- For test case 2: one possible path to go from city 2 of Luminescia to city 3 of Sylvantasia is as follows :

Go from city 2 to city 3 of Luminescia by incurring a cost of 1
Then go from city 3 of Luminescia to city 3 Sylvantasia incurring a cost of A[3]*B[3] = 1*1 = 1 (here 3 is a multiple of 3, so teleportation is possible)
Total cost is 1 + 1 = 2, and it can be proved that this is the minimum cost required to go from city 2 of Luminescia to city 3 of Sylvantasia

- For test case 3: it can be proved that no path exists from city 3 in Luminescia to city 4 in Sylvantasia