PROFIT - Maximum Profit

CS&T, the well-known cellphone company, is going to set some new service stations among n possible ones, which are numbered 1,2,...,n. The costs of setting these stations are known as P1,P2,..,Pn. Also the company has made a survey among the cellphone users, and now they know that there are m user groups numbered 1,2,...,m, which will communicate by service station Ai and Bi, and the company can profit Ci.

Now CS&T wants to know which service stations are to be set that the company will profit most.

Input

```
T [The number of tests]
n m [n<=5000 m<=50000]
P1 P2 P3 ... Pn [Pi<=100]
A1 B1 C1
A2 B2 C2
...
Am Bm Cm [1<=Ai,Bi<=n, Ci<=100]
[other tests]
At least 80% of the tests satisfy that n<=200, m<=1000.
```

Output

```
MaximumProfit
[other tests]
```

Example

```
Input:
1
5 5
1 2 3 4 5
1 2 3
2 3 4
1 3 3
1 4 2
4 5 3

Output:
4
Hints:
The service stations to be set are 1,2,3.
```