Problem J
Timing

A clash of galaxies is coming!
A galaxy ruled by the mysterious MdI is trying to annex our milky way, but the galactical government has plans to turn things round.
Our intelligence agency has infiltrated the enemy's headquarter and gained surprising intelligence. The enemy is moving its units around according to a fixed scheme: for each fort a fraction of the units is moved to other forts in each time unit (the time of the flight is negligible).
Now the government has fixed a time when to attack. Your order is to compute the weak points. But as the enemy's galaxy is far, far away it takes one time unit to fly there. Furthermore, we are also certain that the MdI will recognize our target and immediately start all ships which can reach our attacking point (via one link, regardless of its direction). The spy informed you that these strengths are only statistical values, i.e. some sort of indicator as float.

Input

The first line of the input contains the number of test cases ($1 \leq T \leq 10$). Each test case starts with one line containing three integers stating the number of enemy forts N ($1 \leq N \leq 100$), the number of links l ($0 \leq l \leq (N-1)^2$) and the time from now when to attack t ($0 \leq t \leq 5000$). The second line contains N doubles u_i ($0 \leq u_i \leq 1000$) specifying the strength of the stationed troops at each fort followed by l lines containing the links. Each link is described by two integers s_j ($0 \leq s_j < N$), t_j ($0 \leq t_j < N$) describing the source and the target of the link and one double p_j ($0 < p_j \leq 1$), the fraction of units transferred from s_j to t_j in each time unit.

Output

Print the lowest indicator of the enemy galaxy with an absolute or relative error less than 10^{-6}.

(Sample Input and Output are provided on the next page.)

Sample Input

```
3
4 3 1
100 200 10 305
0 1 0.25
1 2 0.1
2 0 0.75
4 3 1
100 200 10 312
0 1 0.25
1 2 0.1
2 0 0.75
4 4 5
100 200 300 400
0 1 0.2
1 2 0.2
2 3 0.3
3 0 0.2
```

Sample Output

```
305.000000000
310.000000000
659.879000000
```

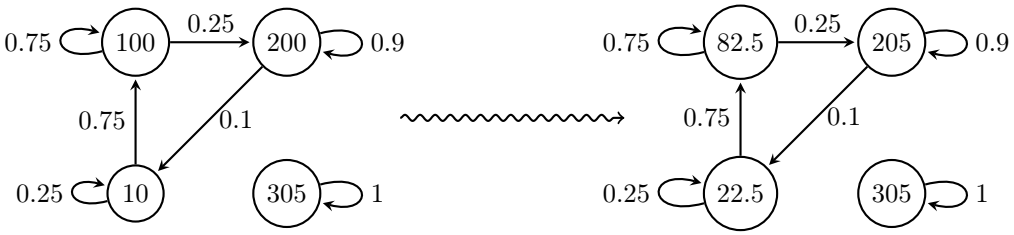


Figure 3 – The statistical strengths of the first sample before and after the first time step.

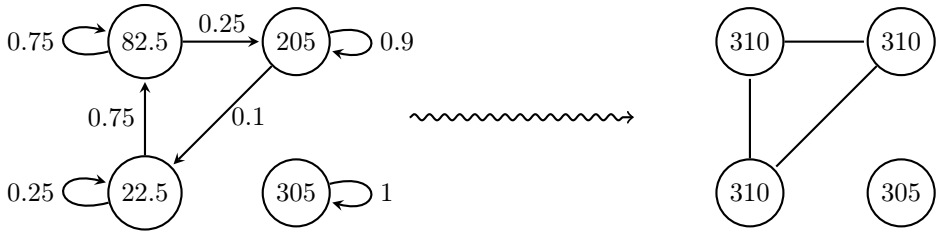


Figure 4 – Strength of the forces to face at each fort. Note that links are used in both directions.