Best Player

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	512 megabytes

The 17th Culinary Combat Professional Contest (CCPC) has ended, and the event organizers will select the best player of this competition.

There are n players numbered from 1 to n who participated in this competition and played a total of m 1 vs 1 duels:

- The opponents in the i-th duel are players a_i and b_i;

- Each duel consists of a first half and a second half:

    - In the first half of the duel, the score of player a_i is x_i, and the score of player b_i is y_i;
    - In the second half of the duel, the exact scores of the two players a_i and b_i are uncertain now, but the sum of the scores is z_i;
    - A player's score in a duel equals to the sum of the first half score and the second half score. In other words, in the i-th duel, the possible scores for a_i and b_i are $x_i + p_i$ and $y_i + q_i$ respectively, where $0 \leq p_i, q_i \leq z_i, p_i + q_i = z_i$.

Note that all scores are non-negative integers, and each player has participated in at least one duel.

A player's final score is: the **maximum** score achieved in duels he participated. A player will win the best player award if and only if his final score is **strictly** larger than any other player's final score.

Due to the uncertainty of the scores in the second half of the m duels, the best player may also be different. Please find all the players who could possibly be the best player.

Input

The input contains multiple testcases.

The first line contains a single integer t ($1 \leq t \leq 10^5$), denoting the number of testcases.

For each testcase:

The first line contains two integers n, m ($2 \leq n \leq 2 \times 10^5$, $1 \leq m \leq 2 \times 10^5$), denoting the number of players and duels.

The i-th of the next m lines contains 5 integers a_i, b_i, x_i, y_i, z_i ($1 \leq a_i, b_i \leq n$, $a_i \neq b_i$, $0 \leq x_i, y_i, z_i \leq 10^5$), of which meanings are described above. It is guaranteed that each player participates in at least one duel.

It is guaranteed that neither the sum of n nor the sum of m over all test cases exceeds 2×10^5.

Output

For each testcase:

The first line output a single integer k, denoting the number of players who could possibly be the best player.

The second line output k integers listed in **ascending order**, denoting the player numbers who could possibly be the best player. Specially, when $k = 0$ either output an empty line or not will be considered correct.

Example

standard input	standard output
2	3
3 2	1 2 3
1 2 2 3 6	2
2 3 6 6 2	2 3
4 4	
1 2 2 4 1	
2 3 2 3 0	
3 4 4 1 2	
1 4 1 1 1	

Note

In the first testcase of the example, all three players could possibly be the best player. Player 1 can be the best player only in the following case:

- In the first duel, player 1 scores $2 + 6 = 8$, player 2 scores $3 + 0 = 3$;

- In the second duel, player 2 scores $6 + 1 = 7$, player 3 scores $6 + 1 = 7$.

In this case, player 1's final score is 8, player 2's final score is $\max(3, 7) = 7$, and player 3's final score is 7, so player 1 is the best player.