

Problem I. It's All In The Mind

Input file: *standard input*
Output file: *standard output*
Time limit: 1 second
Memory limit: 64 mebibytes

Professor Zhang has a number sequence a_1, a_2, \dots, a_n . However, the sequence is not complete and some elements are missing. Fortunately, Professor Zhang remembers some attributes of the sequence:

- For every $i \in \{1, 2, \dots, n\}$, $0 \leq a_i \leq 100$.
- The sequence is non-increasing: $a_1 \geq a_2 \geq \dots \geq a_n$.
- The sum of all elements in the sequence is not zero.

Professor Zhang wants to know the maximum value of $\frac{a_1 + a_2}{\sum_{i=1}^n a_i}$ among all the possible sequences.

Input

There are multiple test cases. The first line of input contains an integer T indicating the number of test cases. For each test case:

The first line contains two integers n and m ($2 \leq n \leq 100$, $0 \leq m \leq n$): the length of the sequence and the number of known elements.

Each of the next m lines contains two integers x_i and y_i ($1 \leq x_i \leq n$, $0 \leq y_i \leq 100$, $x_i < x_{i+1}$, $y_i \geq y_{i+1}$) indicating that $a_{x_i} = y_i$.

There are at most 2000 test cases, and the total size of the input is no more than 350 kibibytes.

Output

For each test case, output the answer as an irreducible fraction p/q where p and q are integers, and $q > 0$.

Example

standard input	standard output
2	1/1
2 0	200/201
3 1	
3 1	