Ending

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

Zag is playing an interesting game during COVID-19 quarantine. The game has n different events, and players start from event 1.

Except for the ending event (numbered n), each event has several follow-up events. While being in a specific event, you can advance to one of its follow-up events with a given probability. If you successfully advance to one of the follow-up events, you can never go backward. Or, if you have unluckily failed to advance, you can try to move to other follow-up events. If you have tried all follow-ups and still failed, your game is over.

Zag asked Coffee, the game developer, to tell him all events and their follow-ups, along with probability to successfully advance, so that you can help him decide his best chance of getting to the ending event.

Input

First line contains two integers $n, m (2 \leq n \leq 5 \times 10^4, 1 \leq m \leq 10^5)$, the number of events and the number of follow up relations.

Then m lines follow, each of which consists of three numbers $x, y, p (1 \leq x, y \leq n, 0 \leq p \leq 100)$, denoting that you may advance from event x to event y with probability $p\%$.

It is guaranteed that you can not return to a passed event through the follow-up relations.

Output

Print a single decimal number, the maximum probability of reaching the ending event. Your answer is considered correct if the absolute or relative error doesn't exceed 10^{-6}.

Example

standard input	standard output
4 4 1 2 50 1 3 50 2 4 30 3 4 70	0.425000