

Nice flight

Loc is a loyal Barcelona football club fan and has always had a dream of going to Camp Nou to watch his favorite players play. After working and saving a little money, Loc was ready for his trip. When preparing his luggage to depart, he found a voucher for a discount on a plane ticket, which would help him save quite a bit of money. Voucher can be applied to a flight with price x and the price of that flight will only be $x/2$ (it is rounded down to an integer). Please help him use the voucher wisely and find the **minimum-price flight route** from home to Barcelona.



Input:

The first input line has two integers n and m : the number of cities and flight connections ($2 \leq n \leq 10^5, 1 \leq m \leq 2 * 10^5$). The cities are numbered $1, 2, \dots, n$. City 1 is Binh Dinh (Loc's hometown), City n is Barcelona. After this there are m lines describing the flights. Each line has three integers a, b , and c ($1 \leq a, b \leq n, 1 \leq c \leq 10^9$): a flight begins at city a , ends at city b , and its price is c . Each flight is unidirectional.

Output:

Output the minimum price

Samples Input	Samples Output
3 4 1 2 3 2 3 1 1 3 7 2 1 5	2

Example: His flight route is 1,2,3. He used voucher on (1,2) and reduced price to 1. Price = $1 + 1 = 2$