

## 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 realized there was 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 =  $1 + 1 = 2$