Trains

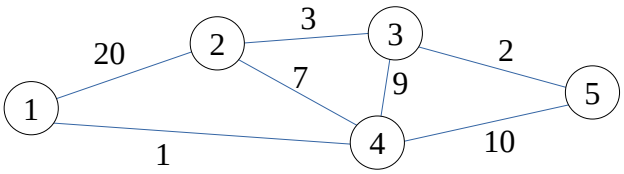
1 second, 256 MB

In a country where everything is ranked. Train tickets also have levels, and as expected, trains between stations have levels.

There are **N** train stations (2 <= **N** <= 3,000). There are **M** direct routes between train stations (1 <= **M** <= 30,000). Route **i**, for 1 <= **i** <= **M**, connects stations $\mathbf{A_i}$ with station $\mathbf{B_i}$ and only accepts passenger with ticket level at least $\mathbf{C_i}$. All train routes are bidirectional, i.e., you can either go from $\mathbf{A_i}$ to $\mathbf{B_i}$ or from $\mathbf{B_i}$ to $\mathbf{A_i}$.

There are also **Q** passengers (1 <= **Q** <= 10). Passenger **j** has a ticket with level $\mathbf{L_j}$ and wants to travel from station $\mathbf{S_j}$ to station $\mathbf{T_j}$. You want to check if she can actually do so with her ticket.

Consider the following example with N = 5 with M = 7. The minimum ticket level for each route is shown on the line.



The next table shows Q = 4 passengers with ticket levels and traveling objectives. The table also shows if each passenger can do so with her ticket.

i	L_i	S_i	T_i	Possible?
1	10	2	1	yes
2	5	4	5	no
3	3	2	5	yes
4	6	3	1	no

Input

The first line of input contains three integers **N M** and **Q**. (2 <= **N** <= 3,000; 1 <= **M** <= 30,000; 1 <= Q <= 10)

The next **M** lines contains route information. Specifically, for 1 <= **i** <= **M**, line **1+i** contains three integers $\mathbf{A_i}$ $\mathbf{B_i}$ $\mathbf{C_i}$, that describe a route between station $\mathbf{A_i}$ and $\mathbf{B_i}$ with minimum passenger level $\mathbf{C_i}$. (1<=$\mathbf{A_i}$<=**N**; 1<=$\mathbf{B_i}$<=**N**; 1<=$\mathbf{C_i}$<=100,000)

The next **Q** lines contain passenger information. For 1 <= **j** <= **Q**, line **1+M+j** contains three integers $\mathbf{L_i}$ $\mathbf{S_i}$ and $\mathbf{T_i}$. (1<=$\mathbf{L_i}$<=100,000; 1<=$\mathbf{S_i}$<=**N**; 1<=$\mathbf{T_i}$<=**N**)

Output

The output contains **Q** lines, each line answers the question for one passenger. On line j, the output should contain string `yes` if passenger **j** can travel from station $\mathbf{A_i}$ to $\mathbf{B_i}$ using ticket level $\mathbf{L_i}$ and should contain string `no` otherwise.

Example

Input	Output
5 7 4 1 2 20 1 4 1 2 4 7 2 3 3 3 4 9 5 3 2 5 4 10 10 2 1 5 4 5 3 2 5 6 3 1	yes no yes no