PROBLEM K. TAXI DRIVER

Time limit: 1 second

A taxi driver on his way home want to make some extra cash, he looks up the taxi booking system for customers. His way home is a straight road with n positions $(1,2,\ldots,n)$ where he start from position 1 and drive to his home at position n. There are m customers are booking on the system, customer i wants to move from position a_i to position b_i and willing to pay c_i thousand VND. At most 2 customers can be on the taxi at any point of time and the customers won't pay if the driver doesn't take them all the way until the position they want. Please help him pick customers to serve so he can make the most profit on his way home without round trips (driving backward).

Input

The first input line contains a positive integer T, the number of test cases. T groups of lines followed, each described a test case. Each test case consists of:

- One line with a two integer n, m ($n \geq 2, m \geq 0$).
- The next m lines, i-th line contains three integers a_i, b_i, c_i ($1 \leq a_i < b_i \leq n$, $1 \leq c_i \leq 10^9$).

The sum of n and the sum of m over all test cases will not exceed 2000.

Output

Output T lines, each line contains the largest amount of money that the taxi driver can make.

Sample

INPUT	OUTPUT
2 3 3 1 3 1 1 2 1 2 3 1 5 4 1 4 10 1 3 3 1 2 2 2 5 2	3 14