K	Phi Numbers in Range!	Time Limit: **5 sec**
	Setter: G. M. Shahariar Shibli	Memory Limit: **1 GB**

In number theory, Euler's phi function, denoted as $\phi(n)$, is an arithmetic function which counts the positive integers less than or equal to **P** that are relatively prime to **P**. A number **X** is relatively prime to **P** if **GCD(X, P) = 1**.For example, if **P** = **10**, then there are **4** numbers, namely **1, 3, 7, 9** which are relatively prime to **10**. Therefore, **ϕ(10) = 4**.

In this problem, you have to answer **M** number of queries of the form **L R K**. To answer the queries, at first you have to generate an array **A** consisting of first **N** phi numbers. For example if N =11, then array **A** will look like, A = {1, 1, 2, 2, 4, 2, 6, 4, 6, 4, 10}. For clarity, $\phi(1) = 1$, $\phi(2) = 1$, $\phi(3) = 2$, $\phi(4) = 2$, $\phi(5) = 4$, $\phi(6) = 2$, $\phi(7) = 6$, $\phi(8) = 4$, $\phi(9) = 6$, $\phi(10) = 4$, $\phi(11) = 10$.

For each query, *you have to print the **smallest K-th distinct phi number** in the range **L** to **R**.* Say L = 6, R = 11, K = 2. Let S denote the set of elements of array A with its indices between 6 and 11. Then S = {2, 6, 4, 6, 4, 10}. The smallest 2nd distinct phi number = 4. What if K = 3? Answer is 6.

Notice that if K = 5 then there is no smallest k-th distinct phi number in that range. In such case, you have to print **No Distinct Phi Number**.

Input:

At first, there will be an integer **T (1 <= T <= 10)**, which is the number of test cases. For each case, you will be given two positive integers **N** and **M** that are the number of phi numbers to be generated at first and the number of queries **(1 <= N, M <= 10^5)**. Then there will be **M** lines each containing three numbers **L R K (1 <= L <= R <= N, 1 <= K <= N)**

Output:

For each case print the case number in the first line like **Case x:** where **x** is the number of the test case. Then output the smallest K-th distinct phi number or **No Distinct Phi Number** for each query in a new line. See the sample I/O for better understanding.

The sample I/O is in the next page.

Sample I/O:

Sample Input	Sample Output
1 11 4 4 6 1 6 11 2 2 7 3 4 6 4	Case 1: 2 4 4 No Distinct Phi Number