In programming contests, a common problem for the contestants is getting a suitable T-shirt. Sometimes people get too long or too short T-shirts. So, this time I have planned to ask the authority to manage the T-shirts such that everyone gets a suitable one. From my past experience, it's known that there are 6 available sizes of T-shirts and they are XXL, XL, L, M, S, and XS. And exactly two sizes of T-shirts suit a person.

Now, for a contest, there are T-shirts of N colors and M contestants. And for each color, all the 6 sizes are available. So, there are 6 * N T-shirts. And you are given suitable sizes for each contestant. You have to distribute the T-shirts to the contestants such that everyone gets a suitable size. Only size matters, color is not an issue. Now you have to decide whether it's possible or not.

**Input**

Input starts with an integer T (≤ 50), denoting the number of test cases.

The first line of each test case contains two integers N and M, separated by spaces, with 1 ≤ N, M ≤ 50. Each of the next M lines will contain two sizes as described earlier.

**Output**

For each case, print the case number and "YES" or "NO" depending on whether it's possible to distribute the T-shirts or not.

**Sample**

| Input | Output |
|---|---|
| 3<br>3 6<br>L XL<br>XL L<br>XXL XL<br>S XS<br>M S<br>M L<br>1 4<br>S XL<br>L S<br>L XL<br>L XL<br>1 1<br>L M | Case 1: YES<br>Case 2: NO<br>Case 3: YES |