

Our friend Victor participates as an instructor in an environmental volunteer program. His boss asked Victor to distribute N T-shirts to M volunteers, one T-shirt each volunteer, where N is multiple of six, and $N \geq M$. There are the same number of T-shirts of each one of the six available sizes: XXL, XL, L, M, S, and XS. Victor has a little problem because only two sizes of the T-shirts suit each volunteer.

You must write a program to decide if Victor can distribute T-shirts in such a way that all volunteers get a T-shirt that suit them. If $N \neq M$, there can be some remaining T-shirts.

Input

The first line of the input contains the number of test cases. For each test case, there is a line with two numbers N and M . N is multiple of 6, $1 \leq N \leq 36$, and indicates the number of T-shirts. Number M , $1 \leq M \leq 30$, indicates the number of volunteers, with $N \geq M$. Subsequently, M lines are listed where each line contains, separated by one space, the two sizes that suit each volunteer (XXL, XL, L, M, S, or XS).

Output

For each test case you are to print a line containing 'YES' if there is, at least, one distribution where T-shirts suit all volunteers, or 'NO', in other case.

Sample Input

```
3
18 6
L XL
XL L
XXL XL
S XS
M S
M L
6 4
S XL
L S
L XL
L XL
6 1
L M
```

Sample Output

```
YES
NO
YES
```