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
```