

Warrior, Wizard and Demons

The demons are on their way to attack the island of humans but to stop them from achieving their goal are a warrior and wizard
a warrior can win a duel against the demon with lower power level than his i.e $w > d$ where w, s denotes warrior's and demons power level respectively
and a wizard can defeat the demon with power level (WZ) equal to that of wizard or multiple of his power
if all the demons are defeated then the the message to be displayed is victory
else the message to be displayed is We are Doomed
the battle formation is in form of a pascal triangle as shown below

```
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
1 6 15 20 15 6 1
```

Input format :

The first line of input contains T i.e. the number of test cases. The description of T test cases follows.
The first line of each test case contains an integer N denoting number of levels of army to be considered
This line contains the integers W,WZ

Output format:

For each test case, print a single line containing the string "VICTORY";
if all demons are defeated
else print "WE ARE DOOMED"

Constraints:

$1 \leq N \leq 15$

SOLUTION:

```
def printPascal(n,s1,w) :
    demonCount,deadDemons=0,0
    defeatedDemons=[]
    for line in range(0, n) :
        for i in range(0, line + 1) :
            x= binomialCoeff(line, i)
            demonCount+=1
            if(x<s1 or x%w==0 or x<w ) :
                deadDemons+=1
                defeatedDemons.append(x)
    if(deadDemons==demonCount):
        print("VICTORY")
    else:
        print("WE ARE DOOMED")

def binomialCoeff(n, k) :
    res = 1
    if (k > n - k) :
        k = n - k
    for i in range(0 , k) :
        res = res * (n - i)
        res = res // (i + 1)

    return res

t=int(input())
while(t>0):
    n = int(input())
    s,W=map(int,input().split())
    printPascal(n,s,W)
    t-=1
```

