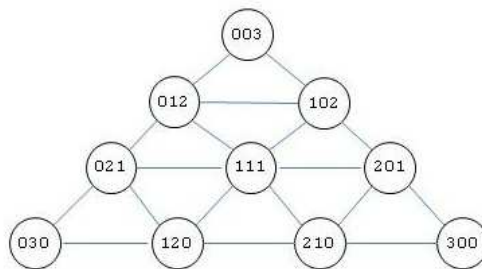


# Problem A

## Y-game

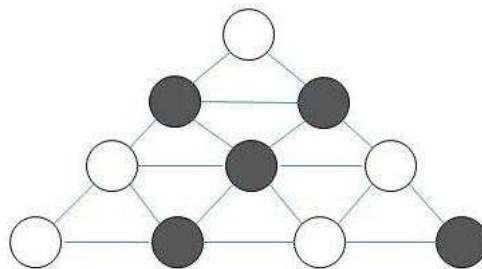
Source file name: `ygame.c`, `ygame.cpp` or `ygame.java`

Willy and Benny enjoy very much playing *Y-game*! This is a game in which white and black tokens are placed on a triangular  $n$ -grid,  $n \geq 0$ , where  $n$  is called the order of the grid. A 3-grid is depicted in the figure below:



In general, an  $n$ -grid has  $(n+2)(n+1)/2$  points with nonnegative “baricentric coordinates”  $(x, y, z)$ , where  $x + y + z = n$ . Coordinates in a  $n$ -grid are assigned in such way that along right to left paths  $x$ -coordinates are constant,  $y$ -coordinates increase by one unit, and  $z$ -coordinates decrease by one unit (observe that this construction maintains  $x + y + z = n$  true). Symmetric situations may be observed for left to right (where  $y$ -coordinates are constant) and horizontal (where  $z$ -coordinates are constant) paths. A point  $(x, y, z)$  in a  $n$ -grid is said to lay on the  $x$  side (resp.,  $y$  side,  $z$  side) if and only if  $x = 0$  (resp.,  $y = 0, z = 0$ ).

Willy uses white tokens and Benny uses black ones. *Y-game* rules are rather complicated, but the end of the game is attained when there is a token placed on every node of the grid. The winner is that player that has formed a *Y*, that is, his/her tokens are so placed that they include a connected set of points with a point on each side. For example, the following figure represents an end situation where Benny wins:



The winner is rather easy to determine when the grid is small. But Willy and Benny are not interested in that discussion today. Actually, they just want a software solution that computes the winner of ended *Y-games*. Could you help them?

## Input

The problem input consists of several cases. A case begins with a line with two integer numbers,  $n$  and  $m$ , where  $n$  is the order of the grid and  $m$  the number of positions that have a black-coloured token (Benny's tokens), with  $0 \leq n \leq 20$  and  $0 \leq m \leq (n+2)(n+1)/2$ .

Then,  $m$  lines follow, each one with 3 values  $x$ ,  $y$  and  $z$  representing coordinate  $(x, y, z)$  of a point in the  $n$ -grid with a black token. Values on each input line are separated by one or more spaces.

The end of the input is signaled by a line

0 0

*The input must be read from the file ygame.in.*

## Output

Output texts for each input case are presented in the same order that the input is read. For an input case in the puzzle statement, the output should be a single line with the left-justified text

Willy

or

Benny

accordingly to the fact that Willy or, respectively, Benny wins in that case.

*The output must be written to standard output.*

Sample Input	Sample output
3 5	Benny
0 1 2	Willy
1 0 2	Willy
3 0 0	
1 1 1	
1 2 0	
2 3	
0 0 2	
1 0 1	
0 2 0	
1 1	
1 0 0	
0 0	