Jolly Grado 11

A sequence of n > 0 integers is called a jolly jumper if the absolute values of the differences between successive elements take on all possible values 1 through n−1. For instance, 1 4 2 3 is a jolly jumper, because the absolute differences are 3, 2, and 1, respectively. The definition implies that any sequence of a single integer is a jolly jumper. Write a program to determine whether each of a number of sequences is a jolly jumper.

Input:

Each line of input contains an integer n < 3000, followed by n integers   representing the sequence.

The end of the input will be n=0 that represents the end of the program.

Output

For each line of input generate a line of output saying "Jolly" or "Not jolly".

Example

Input:

5 1 4 2 3

5 1 4 2 -1 6

0

Output:

Jolly

Not jolly