Challenge 337: The Last Number

The integers from 1 to 100 inclusive are written on a whiteboard.

Two students, Kay and Elly, take it in turns to choose two of the integers, write their sum on the whiteboard and then erase the original two numbers chosen. The process stops when there is only one number written on the whiteboard.

Kay goes first.

Who writes on the board last, and what is the last integer they write?