The Last Person Standing

One thousand people stood in a very large circle. Each, starting with the Jennifer Lopez look-alike, wore a sign on his or her back with a numeral from 1 to 1000 in a clockwise sequence. They began counting off. The Jennifer Lopez look-alike said, "One in," and remained in the circle. The 7"6' basketball player to her left said, "Two out," and left the circle. The rap singer next in sequence said, "Three," and remained in the circle. The United States Senator who was next in sequence said, "Four out," and left the circle.

So it continued with each person sporting an odd numeral stating the numeral, saying "in," and remaining in the circle and with every person wearing an even numeral leaving the circle.

It was easy to visualize who remained in the circle when the count off again reached the Jennifer Lopez look-alike. Since the person before her said, "One thousand out," and left the circle, she now said, "One in," and stayed in the circle. Continuing this sequence the rap singer said, "Three out," and left the circle. This process would keep going on and on until only one person was left in the circle.

What is the number of the last person standing?