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49) Let's look at the problem with just 100 or three statements -

a) Some of the statements are true, so in fact exactly one of the statements is true, and the other 99 are false. That's what the 99th statement says. So it's true and next one false.

b) The 100th statement can't be true as it says all the statements are false. That means the first statement is true. Now if the 99th statement is true, then statement 1-100 are all false which is contradictory with the truth value of statement 99. So, it is false and that indicates statement 2 is true. So, statement 1-50 are true, and 51 to 100 are false.

c) If there are an odd number of statements then ~~we~~ there will be a contradiction. For example, if there were three statements, then statement 3 would be false making statement 1 true and this would create a paradox. Therefore, the situation is impossible for odd number of statements.