The Claim

Two times infinity is no larger than infinity; they are equal.

My Claim

That claim can be proven false.

Let A be the infinite set of positive integers.

Let B be the infinite set of "even" positive integers.

For simplification, let's compare only the first elements from of each set:

Set A = {1,2,3,4,5,6...}

Set B = { 2, 4, 6...}

No matter what number you pick, Set A will always have at least twice as many elements as Set B.

No matter how far out you go, that will always be true.

Since it is true that for ANY number, Set A has at least twice as many elements as Set B, then it is impossible to pick any number, no matter how far out into infinity you go, where Set B will have as many elements as Set A. In fact, Set B will never be more than half the size of Set A ... no matter what number you choose.

What is true for ANY number – must be true for ALL numbers.

Therefore, Set B can never be equal in size to Set A,

no matter which number you choose nor how far out you go.

UPDATE 3/23/18

<https://www.youtube.com/watch?v=TbeA1rhV0D0>

REINFORCEMENTS!

<https://www.scientificamerican.com/article/strange-but-true-infinity-comes-in-different-sizes/>