THE BANACH-TARSKI THEOREM

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Abstract: The Banach-Tarski Theorem posits that there is a way to partition a given sphere into finitely many pieces and reassemble them to form two spheres that have the same shape and surface area as the original sphere. Though this theorem runs counter to our understanding of the mechanics of the natural world, this surprising result is possible in mathematical space as a peculiar consequence of the size of an infinite set. This talk will give a brief overview of the proof of this theorem.

Prerequisites: A basic understanding of sets and set theory.

REFERENCES