What is the most important theorem?

Mathematical truths are organized in an incredibly structured manner. We start with the basic properties of the natural numbers, called axioms, and slowly, painfully work our way up; first reaching the real numbers then the joys of calculus and far, far beyond. To prove new theorems, we make use of old theorems, creating a network of interconnected results: a mathematical house of cards.

So whats the big picture view of this web of theorems? Here, we take a first look at a part of the "Theorem Network", and uncover surprising facts about the ones that are important. We use Walter Rudin's "Principles of Mathematical Analysis" for the network, and use Gephi for visualization. We find that the Multivariate Change of Variables in Integration relies on the most previous results. A basic result about sets known as DeMorgan's Laws prove the most useful, leading to the biggest connected component.