

In 1958 Ernest Nagel and James R. Newman's book *Gödel's Proof* was published, it is a thorough but accessible explanation of Gödel's theorem. If you study their explanations deeply you will come to the conclusion that Gödel's theorem is invalid. Gödel translated the elements of mathematics into numbers which he calls Gödel numbers. Each individual element of a mathematical formula is assigned a number such as each of the variables, each of the constants, each of the various signs and symbols plus each element of punctuation including left parentheses and right parentheses. The Gödel number for a formula also encodes the order in which the elements occur so for example the Gödel number of the formula $0 = 0$ is 243,000,000. Gödel also has a method to assign a Gödel number to sequence of formulas grouped together to form a proof.

Gödel's assignment of Gödel numbers to the individual elements of mathematical formulas is not rigorous enough to avoid confusion. He adds to the confusion by concocting formulas where variables such as y refer to entire proofs. This may have been done on purpose in an effort to prove his thesis.