

George Boole Outline

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March 22, 2016

1. Introduction
2. Life
 - (a) Fill in stuff here Michele!
3. Contributions to Mathematics
 - (a) Numerical Analysis
 - i. Wrote "On the Comparison of Transcendents, with Certain Applications to the Theory of Definite Integrals" (1857)
 - A. Boole's Identity
 - (b) Boolean Algebra
 - i. Introduced in "The Mathematical Analysis of Logic" (1847)
 - ii. Refined in "An Investigation of The Laws of Thought" (1854)
 - iii. Notation
 - A. Variables
 - B. Negation
 - C. Or
 - D. And
 - E. True
 - F. False
 - iv. George Boole first explained the concept in terms of sets

- A. Difference
- v. Axioms of Boolean Algebra
 - A. Identity
 - B. Null Value
 - C. Complement
 - D. Idempotent
 - E. Commutative
 - F. Associative
 - G. Distributive
 - H. Inverse
 - I. Absorption
- vi. Other Common Boolean Algebra Rules
 - A. Exclusive Or
 - B. Nor
 - C. Nand
 - D. Demorgan's
- vii. Duality principle of Boolean Algebra
- (c) Probability
 - i. In the second part of "An Investigation of The Laws of Thought"
(1854)
 - A. Boole's Inequality
- 4. Conclusion