

DISCRETE MATHEMATICS
Knowledge has Organizing Power

Theme 4
LOGIC
Knowledge has Organizing Power

LESSON 15
BOOLEAN FUNCTIONS
Locating Organizing Power at the Deepest Level of Life

Wholeness of the Lesson

Boolean algebras are a generalization of the properties found in logic and in elementary set theory.
Science and Technology of Consciousness: The fundamental impulses of intelligence responsible for the entire manifest universe are found in the transcendental field of pure consciousness.

Main Points

1. The simplest Boolean algebra embodies the rules for combining 1 and 0, True and False, On and Off.
Science and Technology of Consciousness: The simplest level of life is our own experience of our awareness becoming aware of itself in Transcendental Consciousness.
2. A Boolean algebra is a set with three operations having the same properties as union, intersection, and complementation of subsets of a given set.
Science and Technology of Consciousness: Life is structured in layers. At the deepest layer of creation are the fundamental laws of nature that structure all the more manifest levels.
3. Minterms enable us to express any Boolean function as a sum of products. This enables us to build a Boolean expression with a specified set of values.
Science and Technology of Consciousness: The outer values of life are expressions of the inner experience of the Self.

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Connecting the Parts of Knowledge
with the Wholeness of Knowledge

Basics of Boolean algebra

1. Boolean algebras and their functions are used to design circuits in microprocessors.
2. The abstract definition of a Boolean algebra allows us to apply results about Boolean algebras to a variety of structures, notably circuits, logic, and set theory.

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3. Experience of **Transcendental Consciousness** is experience of the most abstract level of life.
 4. **Impulses within the transcendental field:** begin to create layers of more and more concrete expressions of creation.
 5. **Wholeness moving within itself:** In Unity Consciousness, we experience all aspects of life in terms of the simplest level of life, our own pure consciousness, the Self. In this state, all the laws of nature are available to us for accomplishing anything we wish.

