## DISCRETE MATHEMATICS Knowledge has Organizing Power

## Theme 3 RECURRENCE RELATIONS AND COUNTING Self-Referral Dynamics

### LESSON 10 SETS AND RELATIONS

Creating through Self-Interacting Dynamics

#### Wholeness of the Lesson

Set theory is the subtlest level of mathematics, comparable to the unified field level of physics. Science and Technology of Consciousness: The subtlest level of all creation is our own pure consciousness.

#### **Main Points**

- 1. A set is a whole made up of definite, distinct objects of our perception or awareness. Virtually every mathematical object can be understood in terms of set theory. Science and Technology of Consciousness: Our own transcendental consciousness is the source of all creation.
- 2. Sets have operations, including union, intersection, complementation, cartesian product, and power set formation. These operations give structure and an internal self-interacting dynamism to the collection of all sets.

  Science and Technology of Consciousness: The self-interacting dynamics of consciousness observing itself structures all of creation.
- 3. A relation on a set tells how the elements of the set are related to one another. Science and Technology of Consciousness: With the regular practice of Transcendental Meditation, we see how parts are meaningfully related to one another.<sup>5</sup>
- 4. A function connects each element of the domain set to an element of the range set. Science and Technology of Consciousness: Knowledge requires a knower, a process of knowing, and the known.

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<sup>&</sup>lt;sup>1</sup>Alexander CN, Rainforth MV, Gelderloos P. Transcendental Meditation, self-actualization, and psychological health: a conceptual overview and statistical meta-analysis. *Journal of Social Behavior and Personality* 1991 6(5):189–247

## **UNITY CHART**

# Connecting the Parts of Knowledge with the Wholeness of Knowledge Operating with Sets

- 1. Sets have operations and relations.
- 2. Set operations and relations structure all of mathematics.
- 3. Transcendental Consciousness is a field of pure silence.
- 4. Impulses within the transcendental field: are the source of the operations and relationships that structure all of creation.
- 5. Wholeness moving within itself: In Unity Consciousness, we see that all dynamism has its source in the pure silence of our own unbounded self.

