

# VARIANT: LIMITS LEARNING OBJECTIVES



## ZONE 1: THE NATURE OF POINTS

### Learning objectives covered:

- » Given the graph of a function, the learner will be able to approximate the limit of the function as  $x$  approaches a given value. *\*Understand*
- » Given a function graphically the learner will be able to determine whether or not the function is continuous at a particular point of its domain. *\*Apply*
- » The learner will be able to identify when a function is continuous from the left and from the right at a particular point. *\*Remember*

## ZONE 2: FUNCTIONS, FUNCTION RELATIONSHIPS TO LIMITS & LIMIT LAWS

### Learning objectives covered:

- » The learner will be able to relate the graphical representation of a function to the graphical concept of limit. *\*Understand*
- » The learner will apply the rules and principles of limits to determine the limit of a function. *\*Apply*

*\*Level of Cognitive Domain in the Revised Bloom's Taxonomy (Anderson et al., 2001)*

## ZONE 3: RELATING CONTINUITY TO LIMITS

### Learning objectives covered:

- » The learner will be able to relate the notion of continuity to both the notion of limit and the value of a function at a point. *\*Understand*
- » The learner will use the properties of continuity and relate them to corresponding properties of limits. *\*Apply*
- » The learner will be able to apply the Intermediate Value Theorem in various different contexts. *\*Evaluate*

## ZONE 4: ASYMPTOTES

### Learning objectives covered:

- » The learner will be able to determine function behaviors as  $x$  infinitely increases or decreases. *\*Analyze*
- » The learner will be able to identify vertical asymptotes and oscillating behaviors of functions. *\*Analyze*

