1023-Z1-587 **Chokri Cherif*** (ccherif@bmcc.cuny.edu), Mathematics Department of BMCC, 199 Chambers Street, New York, NY , and **Avraham Goldstein** (agoldstein@bmcc.cuny.edu), Mathematics Department of BMCC, 199 chambers Street, New York, NY. *The Syllogism Needed to Negate the Definition of a Converging Sequence.*

The use of the analytical definition of a converging sequence, in calculus courses, is usually very frustrating to students, due to the relative complexity of the definition and the way the parameters involved in the definition interact. We say that a Sequence a_n converges to a limit L, if: For any $\epsilon > 0$, there exists a number $N > 0$, such that, for any natural number $n > N$ we have $|\, a_n - L \,| < \epsilon$.

We are proposing an excellent metaphor to the definition that helps to clarify the meaning of each of the four tangled parameters, namely , N, n, ϵ and L. We will also locate and present the specific portion of syllogism needed in order to negate the above analytical definition. For instance, what would be the analytical meaning if 2 were not the limit of the sequence $a_n = 1 + \frac{1}{n}$? (Received September 23, 2006)