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Susanna S Epp* (sepp@depaul.edu), Department of Mathematical Sciences, DePaul University, 2320 N. Kenmore Ave, Chicago, IL 60614. *Seemingly Abstruse Logical Principles Have Practical Importance.*

Logic, especially the logical principles governing quantified statements, is both essential to and ubiquitous in mathematical proof. This talk will analyze examples of common incorrect proofs given by university students, focusing on (1) the use of bound variables as if they continue to exist beyond the statements in which they are quantified, (2) the implicit use of existential instantiation, (3) the “dependence rule” for existential instantiation, and (4) universal instantiation and its use with existential instantiation. Suggestions for responding to student errors will be offered. (Received September 22, 2010)