

1125-A5-3090      **Robert A Peacock\*** (rpeacock@yhc.edu). *Emphasizing Integral Existalia in Calculus and beyond*. Preliminary report.

I will present ideas for emphasizing the exercise of establishing the existence of integrals appropriate for Calculus courses. Calculating numerical values of integrals by hand in Calculus is limited, so it is valuable to emphasize existence of integrals in order to move beyond just the numerical calculations. I will present a sampling of a theorems-based and problems-based approach to this exercise featuring an additional (heavy) emphasis on parametrized calculations. Fellow faculty may appreciate the emphasis on parametrized calculations that I will sample since parameters within calculations are not necessarily easily found in commonly used Calculus books. Finally, fellow faculty may find ideas to take from this talk to enhance, say, undergraduate Real Analysis courses (or other upper-level courses). (Received September 21, 2016)