1163-A1-873 **Shubhangi Sadanand Stalder*** (`stalder@uwm.edu`), 1500 N. University Drive, Waukesha, WI 53188. *Cultivating an Intuitive Sense of Arithmetic of Functions.*

Time is often tight when teaching College Algebra and Pre-Calculus courses. In this talk, I will present an efficient approach in how you can use inquiry-based learning strategies by choosing concrete examples of functions written in set, tabular, or graphical representation to find the sum, difference, product, quotient, and composition of functions. Transformation of functions then comes for free as a happy byproduct. One benefit of this kind of inquiry-based learning is that students learn about the arithmetic and transformation of functions simultaneously and can develop a deeper or intuitive understanding of the concepts instead of just performing the tasks robotically or as part of rote memorization. Cultivating this intuitive sense can also generate curiosity. Students may want to ask how they can apply their knowledge to graphs of other functions like $y = \ln(x-1)(x+2)$, $y = (e^x - 1)(e^x + 2)$, or $y = \frac{1}{(e^x - 1)}$, and so on. Students can then be allowed or encouraged to verify their intuitive answers using graphing utilities. This kind of training can also be helpful for later Calculus courses. (Received September 13, 2020)