

1023-P5-1241

James R. Hersberger* (hersberg@ipfw.edu), IPFW, 2101 Coliseum Blvd., Fort Wayne, IN 46805. *An analysis of equation solving strategies of mathematics professors versus undergraduate mathematics majors and secondary mathematics teachers while using graphing calculators.*

In this paper we will discuss a series of investigations which have indicated profound differences between mathematics professors and mathematics majors-secondary mathematics teachers concerning their abilities to solve a class of equations correctly using graphing calculators. Initial analyses suggest that while mathematics professors rarely (almost never?) solve the equations incorrectly, the undergraduate majors and teachers overwhelmingly reach incorrect solutions. We will briefly discuss possible causes, and some curricular implications. Suggestions for further investigation will be highlighted, including hemispheric processing and dispositions research. (Received September 25, 2006)