

1116-R5-2131      **Milé Krajcevski\*** ([mile@mail.usf.edu](mailto:mile@mail.usf.edu)), University of South Florida, Dept. of Mathematics & Statistics, CMC 342, 4202 E. Fowler Av., Tampa, FL 33620-5700. *Students' Inclination to Incorporate Sketches During Problem Solving*. Preliminary report.

We often use technology to help visualize complex mathematical notions. But when dealing with relatively simple objects like lines, circles, cylinders or cubes, using free sketching during class presentations seems to be more natural. Many times students justify their reluctance to sketch images during problem solving activity with their inexperience or inability to draw these images. In this talk we present results of a preliminary study that examines students' ability to sketch typical mathematical objects in a Calculus III course, and their inclination to use images that can help them acquire additional information when solving a mathematical problem. We assessed students' notebooks and evaluated their responses on particular test questions that were designed in such a way that visual insights into the problems had potential for simplifying their analytical solutions. (Received September 21, 2015)