1135-Q5-2112 **Maria S. Nogin*** (mnogin@csufresno.edu), 5245 N Backer Ave, M/S PB 108, Department of Mathematics, California State University, Fresno, Fresno, CA 93740, **Adnan H. Sabuwala** (asabuwala@csufresno.edu), 5245 N Backer Ave, M/S PB 108, Department of Mathematics, California State University, Fresno, Fresno, CA 93740, and **Jenna Tague** (jtague@csufresno.edu), 5245 N Backer Ave, M/S PB 108, Department of Mathematics, California State University, Fresno, Fresno, CA 93740. *Nim-like games with 2D boards.*

In this presentation, we share a few games that we play in grades 3-9 of the Fresno Math Circle. While the rules are very simple, developing strategies for these games uses deep mathematical concepts such as symmetry, working backwards, divisibility, and base representations. We provide examples of how the same game can be modified for grade level appropriate challenges. We also demonstrate that some number-theoretic games and geometric games are equivalent, and this correspondence can be used in both directions to develop winning strategies. Through such games, we show our math circle participants a beautiful connection between two different areas of mathematics – number theory and geometry. (Received September 25, 2017)