Joie F. Escuadro\* (escuadroj@juniata.edu). Ready, Set, Eureka! Preliminary report.

Dr. Eureka is a high-speed game of skill, logic and dexterity. Each player will have two green balls, two red balls, two purple balls and three test tubes. Each test tube can hold up to four balls. With the initial position of each test tube holding two balls of the same color, the object of the game is to position the balls as illustrated on a challenge card without touching or dropping any ball. We will explore the many questions that arise from this game. Most questions are of the counting variety but participants can also investigate function inverses and function compositions. (Received September 24, 2017)