1145-VS-55 **Jay L Schiffman*** (schiffman@rowan.edu). *Exploring Rudolph Ordrejka's Prime Magic Square of Order Three.* Preliminary report.

Rudolph Ordrejka (1928-2001) discovered a prime magic square of order three consisting of nine prime entries. The entries in row one are respectively 17, 89 and 71. In row two, the respective entries are 113, 59 and 5 while in row three, the entries are respectively 47, 29 and 101. In this paper, we will determine the smallest constant required to add to each of the entries to obtain a new magic square consisting of 0-8 primes respectively and show the impossibility of obtaining a magic square consisting of all nine entries being prime in this manner. In addition, we determine the case where constants are added to obtain no prime entries. This latter problem takes on two flavors which will be discussed. (Received July 11, 2018)