1023-M1-1917   **Ben Coleman** (`coleman@cs.moravian.edu`), Math/CS Department, 1200 Main Street, Bethlehem, PA 18018, and **Kevin Hartshorn*** (`hartshorn@moravian.edu`), Math/CS Department, 1200 Main Street, Bethlehem, PA 18018. *Using SET to Visualize Higher Mathematics.* Preliminary report.

The elegance of the game Set(tm) is found in the connection

between simple game play and deep mathematical ideas. We will show how this game can be used to explore topics in discrete mathematics, linear algebra, geometry, and group theory, and indicate where this game might be used as a module within these courses. To further demonstrate these connections, we will present a program that provides several visualization of the mathematical structure underlying Set(tm). (Received October 03, 2006)