

1014-M1-778      **Paul Becker\*** (peb8@psu.edu), School of Science, Penn State Erie - The Behrend College,  
Station Road, Erie, PA 16563, and **Paul Olson**. *Scrabble<sup>©</sup> Tournaments, Ramsey Theory, and  
Resolvable Designs*.

The organizer of an upcoming Scrabble tournament approached our department with the following problem. He wished to construct a tournament schedule for 24 competitors with particular properties. The players meet in groups of four each month. Within each group, the six pairs of competitors play six distinct games. The tournament lasts for six months, and no pair repeats a game.

We use graph colorings and finite geometry to construct a small family of solutions. These solutions are subsets of an essentially unique seven-month tournament schedule. That schedule has appeared in the literature as a resolvable group-divisible design; we summarize its history. (Received September 23, 2005)