1035-05-543 **Rethinasamy K Kittappa*** (rkittappa@millersville.edu), Millersville University, PO Box 1002, Millersville, PA 17551. Combinatorial Enumeration of rectangular kolam designs of the Tamil land.

Kolam is an abstract design drawn by women for centuries in the Tamil land to decorate entrance ways. Most popular kolams are rectangular kolams. We show how rectangular kolams can be generated from graph theoretical objects. This leads to the enumeration of nonisomorphic rectangular kolams, resulting in new sequences and their closed form expressions for the general term. We show that the entries in the Losanitsch triangle are particular cases of our general result. We also show other ways to generate rectangular kolams mathematically. (Received September 10, 2007)