



Bilkent University
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PROBLEM OF THE MONTH

Term: April 2014

For a given integer $n \geq 3$, let S_1, S_2, \dots, S_m be distinct subsets of the set $\{1, 2, \dots, n\}$ such that for each $1 \leq i, j \leq m; i \neq j$ the sets $S_i \cap S_j$ contain exactly one element. Determine the maximal possible value of m for each n .