



Bilkent University
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PROBLEM OF THE MONTH

Term: July - August 2012

Let A_1, A_2, \dots, A_k are distinct subsets of the set $\{1, 2, \dots, 2012\}$ such that

$|A_i| = 3$ for each $1 \leq i \leq k$ and $|A_i \cap A_j| \neq 1$ for each $1 \leq i < j \leq k$.

Find the maximal possible value of k .

($|A|$ denotes the number of elements of A).