Bilkent University
Department of Mathematics

PROBLEM OF THE MONTH

Term: May 2019

Let $S = \{1, 2, \ldots, 2019\}$ and $A_1, A_2, \ldots, A_n$ be subsets of S such that the union of any three of them is equal to S and the union of any two of them is not equal to S. Find the maximal possible value of n.