Bilkent University
Department of Mathematics

PROBLEM OF THE MONTH

Term: April 2019

There are 2019 bags: each bag contains 2019 beads with total weight 2019 gr. In each bag the beads are numbered by $1, 2, \ldots, 2019$. A proper collection is a collection of differently numbered beads containing at most one bead from each bag and having total weight not less than 2019 gr. Find the maximal possible value of k, if one can always choose at least k different proper collections.