**Bilkent University
Department of Mathematics**

PROBLEM OF THE MONTH

Term: May 2015

We say that a triple (u_1, u_2, u_3) of unit squares of 2015×2015 grid is *L-shaped* if u_1 and u_2 lie on the same column, u_1 is above u_2, u_3 shares the same line with u_2 and lies to the right of u_2. Find the minimal possible value of k if each unit square of 2015×2015 grid is colored into one of k colors so that no L-shaped triple is mono colored.