

1123-05-284

Michael Young* (myoung@iastate.edu), Ames, IA 50011. *Problems on Rainbow 3-term Arithmetic Progressions.*

A 3-term arithmetic progression is a sequence of the form $a, a + d, a + 2d$, where a and d are nonnegative integers. Given a coloring of $[n]$, we say that an arithmetic progression is *rainbow* if no two elements of the arithmetic progression have the same color. An *anti-van der Waerden number* is the number of colors needed to guarantee that any coloring of $[n]$ using all the colors must contain a rainbow 3-term arithmetic progression. In this talk, we will discuss some known and new results about anti-van der Waerden numbers in $[n]$ and finite abelian groups. (Received August 29, 2016)