

1035-05-1681 **Dan Saracino** (dsaracino@mail.colgate.edu), Colgate University, 13 Oak Drive, Hamilton, NY 13346, and **Brian Wynne*** (bwynne@mail.colgate.edu), Colgate University, 13 Oak Drive, Hamilton, NY 13346. *The 2-color Rado Number of $x + y + kz = 3w$* . Preliminary report.

For any positive integer k there exists a smallest positive integer N , depending on k , such that every 2-coloring of $1, 2, \dots, N$ contains a monochromatic solution of the equation $x + y + kz = 3w$. Based on computer checks, Robertson and Myers conjectured values for N depending on the congruence class of $k \pmod{9}$. We establish the values of N and find that in some cases they depend on the congruence class of $k \pmod{27}$. (Received September 20, 2007)