

Problem of the Week 3

Posting Date 2/17/03, solutions due by 5 pm on 2/28/03. Submit solutions to Noah Aydin, RBH 309-A (e-mail or hard-copy)

Find all non-negative integer solutions to the system of equations:

$$\begin{cases} 3x^2 - 2y^2 - 4z^2 + 54 = 0 \\ 5x^2 - 3y^2 - 7z^2 + 74 = 0. \end{cases}$$

Show your work!