



LEWIS AND CLARK COLLEGE

Department of Mathematical Sciences

PUZZLE OF THE WEEK (11/30/2016 - 12/6/2016)

Find, with proof, all functions $f : \mathbb{R} \rightarrow \mathbb{R}$ that satisfy the inequality

$$f(x + y) + f(y + z) + f(z + x) \geq 3f(x + 2y + 3z)$$

for all $x, y, z \in \mathbb{R}$.

- Congratulations to successful solvers of Puzzle #13: Chris Karagianis and Elias Williamson! A possible solution of the puzzle can be found online – look for the Puzzle of the Week announcements on the departmental web-page.
- Solvers of this week's puzzle should include their name, address, and status at the College. Solutions should be submitted to **Iva Stavrov** in BoDine 305; email submissions are encouraged (istavrov at lclark). Solutions should be received by the end of the day on **Tuesday, December 6th 2016**.