



Lewis & Clark College

Department of Mathematical Sciences

Problem of the Week #13 (Fall 2010)

Find $c > 0$ such that if r , s , and t are the roots of the cubic function

$$f(x) = x^3 - 4x^2 + 6x + c,$$

then

$$1 = \frac{1}{r^2 + s^2} + \frac{1}{s^2 + t^2} + \frac{1}{t^2 + r^2}.$$

- This is the last *Problem of the Week* for fall 2010.
- Solvers should include their name, address, and status at the College. Solutions can be mailed to MSC 110 via campus mail or placed in Yung-Pin Chen's mailbox in the Math Department Office. Solutions to the above *Problem of the Week* should be received by 5:00 p.m. Monday, December 6, 2010.
- Congratulations to Kathleen Daly (so.), Lynsey McGown (so.), and Reuben Peterson (fr.) who solved *Problem of the Week* #12.