



Lewis & Clark College

Department of Mathematical Sciences

Problem of the Week #3	(Fall 2009)
------------------------	-------------

Let $f(x)$ be a strictly increasing function defined for all $x > 0$ such that $f(x) > -\frac{1}{x}$ and $f(x)f(f(x) + \frac{1}{x}) = 1$ for all $x > 0$. Find $f(1)$.

- This problem is due to Joe Jia.
- 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, September 21, 2009.
- *Problem of the Week #2* was solved by James Chu (sr.), Adam Layne (sr.), Dan Sakaguchi (Templeton Scholar), and Yunjie (Shelley) Zhao (sr.). Congratulations to them.