



Lewis & Clark College

Department of Mathematical Sciences

Problem of the Week #8	(Fall 2009)
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Let A be an $n \times n$ matrix with integer entries and such that each column of A is a permutation of the first column. Prove that if the entries in the first column do not sum to 0, then this sum divides $\det(A)$.

- This problem is given by Christopher Hilliar of Texas A & M University.
- 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, October 26, 2009.
- Kathleen Daly (fr.) solved *Problem of the Week #7*. Her solution gives the exact sequence of numbers that the second player should name to win the game. Congratulations to her.