



Lewis & Clark College

Department of Mathematical Sciences

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| Problem of the Week #11 | (Fall 2009) |
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Assume the square of the hypotenuse of a right triangle is equal to its perimeter and one of its legs is 1 plus its in-radius (the radius of the circle inscribed inside the triangle). Find an expression for the hypotenuse in terms of ϕ , where ϕ is the golden ratio.

- This problem is due to Will Gosnell and Herb Bailey.
- 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, November 16, 2009.
- No solution was received for *Problem of the Week* #10.