A PROOF OF THE THREE GEOMETRIC INEQUALITIES CONJECTURED BY YU-DONG WU AND H. M. SRIVASTAVA

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Abstract. In this short note the authors give answers to the three open problems formulated by Wu and Srivastava [Appl. Math. Lett. 25 (2012), 1347–1353]. We disprove the Problem 1, by showing that there exists a triangle which does not satisfies the proposed inequality. We prove the inequalities conjectured in Problems 2 and 3. Furthermore, we introduce an optimal refinement of the inequality conjectured on Problem 3. Mathematics subject classification (2010): 26D07, 51M16.

Keywords and phrases: Geometric inequalities, power mean inequality, geometric inequality conjecture.

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