962-26-1068   **Peter R. Mercer*** (`mercerpr@buffalostate.edu`), Dept. Mathematics, S.U.N.Y College at Buffalo, 1300 Elmwood Avenue, Buffalo, NY 14222. *Refined Arithmetic, Geometric & Harmonic Mean Inequalities.* Preliminary report.

We obtain refinements of the Arithmetic, Geometric, and Harmonic Mean Inequalities. A main ingredient is Hadamard's Inequality. In an application, we obtain a refined version of Ky Fan's Inequality. (Received October 02, 2000)