1125-VW-851 **John Tyler Risher*** (risherjt@email.sc.edu), 807 Hampton St., Walterboro, SC 29488. *Two Inequalities Involving AM, GM, and HM.*

Let A_{a_j}, G_{a_j}, and H_{a_j} indicate the arithmetic mean, geometric mean, and harmonic mean of sequence $\{(a_j)_i\}_{i=1}^n$ respectively. We first prove that $G_{a_1} + \cdots + G_{a_m} \leq G_{a_1+\cdots+a_m}$, and $H_{a_1} + \cdots + H_{a_m} \leq H_{a_1+\cdots+a_m}$, where $G_{a_1+\cdots+a_m}$ and $H_{a_1+\cdots+a_m}$ are the geometric mean and the harminic mean of the sequence $\{(a_1)_i + \cdots + (a_m)_i\}_{i=1}^n$. Applying these two inequalities, we then generalize two results introduced by Lai and Kim, involving the reciprocals of $\sum A_{a_j}$, $\sum G_{a_j}$, and $\sum H_{a_j}$. (Received September 12, 2016)