1145-05-258 **Darren Narayan*** (dansma@rit.edu), School of Mathematical Sciences, Rochester Institute of Technnology, Rochester, NY 14623, **Alejandra Brewer** (breweralie@gmail.com), Mathematics Department, Florida Southern College, 111 Lake Hollingsworth Drive, Lakeland, FL 33801, **Adam Gregory** (agregory1@catamount.wcu.edu), Mathematics and Computer Science Department, Western Carolina University, Cullowhee, NC 28723, and **Quindel Jones** (quindel.d.jones@gmail.com), Dept. of Mathematics & Statistical Sciences, 1400 John R. Lynch Street, Jackson State University, Jackson, MS 39217. *The Asymmetric Index of a Graph.*

A graph G is asymmetric if its automorphism group of vertices is trivial. Asymmetric graphs were introduced by Erdős and Rényi in 1963 where they measured the degree of asymmetry of an asymmetric graph. They proved that any asymmetric graph can be made non-asymmetric by removing some number r of edges and/or adding adding some number s of edges, and defined the degree of asymmetry of a graph to be the minimum value of $r+s$. In this paper, we define another property that how close a given non-asymmetric graph is to being asymmetric. We define the asymmetric index of a graph G, denoted $ai(G)$, to be the minimum of $r+s$ in order to change G into an asymmetric graph.

We investigate the asymmetric index of both connected and disconnected graphs and present new results: $ai(P_n)=1$; $ai(C_n)=2$; $ai(W_n)=2$; for $n\geq 6$, $\left\lfloor \frac{n-1}{2} \right\rfloor \leq ai\left(K_{1,n-1}\right) \leq n-3$; for $n \geq 8$, $\left\lfloor \frac{6n}{7} \right\rfloor \leq ai\left(K_n\right) \leq n-2$ for all $r,s\geq 2$; $ai\left(P_r \times P_s\right)=1$; for $r\geq 2, s\geq 3$; $ai\left(P_r \times C_s\right)=2$; and for $r,s\geq 10$, $ai\left(C_r \times C_s\right)=3$. (Received August 26, 2018)