Meeting: 999, Nashville, Tennessee, SS 14A, Special Session on Graph Theory and Matroid Theory

999-05-123 Rong Luo\* (rluo@mtsu.edu), Department of Mathematical Sciences, Middle Tennessee State University, Murfreesboro, TN 37130, and Yue Zhao (yzhao@pegasus.cc.ucf.edu), Department of Mathematics, University of Central Florida, Orlando, FL 32816. The size of edge chromatic critical graphs with maximum degree six. Preliminary report.

In 1968, Vizing conjectured that for each edge chromatic critical graph G = (V, E) with maximum degree  $\Delta$ ,  $|E| \ge \frac{1}{2} \{|V|(\Delta - 1) + 3\}$ . This conjecture has been verified for  $\Delta \le 5$ . By applying the discharging method, we prove this conjecture for  $\Delta = 6$ . (Received August 17, 2004)