1086-05-1519 **Ya-Chen Chen*** (ya-chen.chen@asu.edu), Sacramento, CA 95814. *Minimum K(2,3)-Saturated Graphs.*

Let F be a graph. A graph is F-saturated if it has no F as a subgraph, but contains F after adding any new edge. The minimum number of edges in an F-saturated graph is sat(n, F). An F-saturated graph on n vertices with sat(n, F) edges is a sat(n, F)-graph. Erdos, Hajnal, and Moon proved that the sat(n, K(k))-graph is the join of $(n - k + 2)$ independent vertices to every vertex in a complete graph K(k-2) on (k-2) vertices.

Pikhurko obtained sat(n, F) of the complete (r+1)-partite graph K(1,...,1,t), as later did G. Chen, Faudree, and Gould. Let K(2,3) be the complete bipartite graph whose partite sets have size 2 and 3. Pikhurko and Schmitt presented K(2,3)-saturated graphs with (2n - 3) edges and obtained a lower bound of sat(n, K(2,3)). Bohman, Fonoberova, and Pikhurko determined sat(n, F) asymptotically for complete multipartite graph F as n tends to infinity and gave structural information about almost extremal F-saturated graphs. We prove their conjecture that sat(n, K(2,3)) = 2n - 3. (Received September 23, 2012)