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Evan Morgan and **Bogdan Oporowski*** (bogdan@math.lsu.edu), Department of Mathematics, Louisiana State University, Baton Rouge, LA 70803. *Decomposing and transforming cubic graphs.*

James Oxley asked whether every graph may have its edges partitioned into two sets such that the contraction of the elements of either set produces a series-parallel graph. While our attempts to fully answer his question have been unsuccessful, they lead us to interesting results, some of which provided partial answers, while some others gave us new insights into cubic graphs. One such new results states that any connected cubic graph can be transformed into any other connected cubic graph on the same vertex set by a sequences of operations that are generalizations of an edge slide. In the talk, I will discuss our successes, our failures, and, most importantly, the new questions raised by our research. (Received September 10, 2009)