1023-16-1274 **David Nacin*** (nacind@wpunj.edu). *Noncommutative Vieta's Theorem and Graph Associated Algebras.*

Vieta's Theorem describes the relationship between the coefficients and roots of a non-commutative polynomial. A theorem of Gelfand and Retakh describes this relationship in the noncommutative case by constructing the class of algebras Q_n. Quotients of these algebras (corresponding to graphs) measure the non-commutativity of Q_n. We give an introduction to the class of graph algebras corresponding to the n-vertex path, P_n. We will also show how combinatorial statements about graphs related to P_n can be used to examine the structure of the algebra P_n. (Received September 25, 2006)