1123-05-91 **Gretchen L Matthews*** (gmatthe@clemson.edu), Department of Mathematical Sciences, Clemson University, Clemson, SC 29631. *Semigroups from divisors on graphs.*

We consider semigroups associated with divisors of functions on graphs. Specifically, we study the collection $H_f(P)$ of nonnegative integers α that arise as coefficients of pole divisors of functions supported by a single vertex P of a finite, simple graph G. Our work is motivated by the classical Weierstrass semigroup of a rational point on a curve whose properties are tied to the Riemann-Roch Theorem as well as its analogue for finite graphs demonstrated by Baker and Norine. Here, we show that $H_f(P)$ is a numerical semigroup with at most g gaps, where g denotes the cyclomatic number of the graph G. In addition, we determine $H_f(P)$ for vertices P of certain families of graphs. This is joint work with Justin Peachey. (Received August 19, 2016)