1086-VN-2902 **William B Jamieson*** (jamieson@goldmail.etsu.edu), **Jessie Deering**, **Teresa Haynes** and **Stephen Hedetniemi**. *Uphill Domination in Graphs.*

A path $\pi = v_1, v_2, \ldots v_{k+1}$ in a graph $G = (V, E)$ is a *downhill path* if for every i, $1 \leq i \leq k$, $deg(v_i) \geq deg(v_{i+1})$, where $deg(v_i)$ denotes the degree of vertex $v_i \in V$, and an *uphill path* if for every i, $1 \leq i \leq k$, $deg(v_i) \leq deg(v_{i+1})$. The *downhill domination number* $\gamma_d(G)$ equals the minimum cardinality of a set $S \subseteq V$ having the property that every vertex $v \in V$ lies on a downhill path originating from some vertex in S, and the *uphill domination number* $\gamma_u(G)$ equals the minimum cardinality of a set $S \subseteq V$ having the property that every vertex $v \in V$ lies on a uphill path originating from some vertex in S. We investigate uphill domination numbers in graphs and compare results to those of downhill domination numbers in graphs. (Received September 26, 2012)