1163-L5-1323 Andrea M. Potylycki^{*} (andrea.potylycki@alvernia.edu), 400 St Bernardine Street, Reading, PA 19607. A Two-Player Pebbling Game. Preliminary report.

Given a graph G with pebbles on the vertices, we define a *pebbling move* as removing two pebbles from a vertex and placing one pebble on its neighbor. The *pebbling number*, $\pi(G)$, of G is the least number of pebbles needed so that any arrangement of the $\pi(G)$ pebbles can reach any goal vertex through a sequence of pebbling moves. We define a new two-person pebbling game, called *Two-Player Graph Pebbling* with players *Mover* and *Defender*. The value $\eta(G)$ is defined as the minimum number of pebbles such that given every configuration of the $\eta(G)$ pebbles and every root vertex, r, Mover has a winning strategy. We determine winning strategies for Mover on cycles and on joins of certain graphs. (Received September 15, 2020)