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Leanne Elizabeth Merrill* (merrill@wou.edu), Department of Mathematics, Western Oregon University, 345 Monmouth Avenue North, Monmouth, OR 97361. *Searching for v_n self-maps at the prime 2: an algebraic approach.*

Devinatz, Hopkins, and Smith tell us that certain types of finite spectra possess non-nilpotent self-maps known as v_n -maps. The most useful such spectra-map pairs have spectra with few cells and a v_n -map with a low power. Though the search for v_n -maps has been underway since the early 1980s, few concrete examples are known, and they often fail to satisfy one of the smallness conditions described above. Palmieri and Sadofsky describe an iterative algebraic algorithm to produce new examples of v_n -maps from related maps called u_i -maps. We describe the progress made in implementing this algorithm at the prime $p = 2$, including non-examples for low powers of v_2 . (Received September 21, 2018)