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(pwenger2@illinois.edu) and **Douglas B. West.** *Uniquely H-Saturated Graphs.*

Given two graphs  $G$  and  $H$ , we say that  $G$  is *H-saturated* if  $G$  does not contain  $H$  as a subgraph, but the addition of any edge to  $G$  completes a copy of  $H$ . Furthermore,  $G$  is *uniquely H-saturated* if  $G$  does not contain  $H$  and the addition of any edge completes exactly one copy of  $H$ . We determine all uniquely  $H$ -saturated graphs when  $H$  is a path and when  $H$  is a cycle with at most four vertices. In each such case, there are only finitely many uniquely  $H$ -saturated graphs. (Received September 21, 2009)