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University of Memphis, Memphis, TN 38152. *Saturation Numbers*.

A graph  $G$  is an  $H$ -saturated graph if  $G$  does not contain  $H$  as a subgraph, but  $G \cup \{e\}$  contains a copy of  $H$  for any edge  $e$  not in  $G$ . The *saturation number* of  $H$ , denoted by  $sat(H, n)$ , is the minimum number of edges in an  $H$ -saturated graph  $G$  of order  $n$ . A survey of some of the classical results on saturation numbers will be presented, also with a comparison of the saturation number  $sat(H, n)$  with the Turán extremal number  $ex(H, n)$ . However, the focus will be on some recent results on saturation numbers. This will include saturation numbers for disjoint union of complete graphs, generalized fans, books and generalized books, and special classes of trees. (Received January 05, 2009)