1138-05-174 **Peter Johnson*** (johnspd@auburn.edu), Department of Math. & Stat., Auburn University, AL 36849. *(n,k,t) Problem.* Preliminary report.

Let P be a graph property, and let n, k, and t be positive integers, in non-increasing order. A P-(n,k,t) graph is a simple graph on n vertices such that every induced subgraph of order k has a subgraph of order t which has property P. (In a variant, it may be required that each induced subgraph of order k has an induced subgraph of order t with property P.) For choices of P and values of n, k, and t such that P-(n,k,t) graphs exist, the P-(n,k,t) problems are to determine which such graphs have the least or greatest number of edges. When P is the property of being complete, the "maximum edges" problem is trivial and the minimum edges problem is unsolved. It is conjectured that every such graph with the minimum number of edges has complete components. This holds in many cases. When P is the property of being connected, the maximum edges problem is again trivial, while the minimum edges problem appears very hard, but intriguing. It is early days. (Received February 08, 2018)