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Lon H Mitchell*, Department of Mathematics, Virginia Commonwealth University, PO Box 842014, Richmond, VA, and **Sivaram K Narayan** and **Andy Zimmer**. *Lower bounds in minimum rank problems.*

The minimum rank of a graph is the smallest possible rank among all real symmetric matrices with the given graph. The minimum semidefinite rank of a graph is the minimum rank among Hermitian positive semidefinite matrices with the given graph. We explore connections between OS-sets and a lower bound for minimum rank related to zero forcing sets as well as exhibit graphs for which the difference between the minimum semidefinite rank and these lower bounds can be arbitrarily large. (Received September 18, 2009)