Forbidden Subgraph Characterizations of Single Graphs

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Any hereditary class of graphs can be characterized by their forbidden subgraphs. We can take the hereditary class to be all subgraphs of a single graph G. Thus any graph G has a unique finite set of minimal forbidden subgraphs. We characterize the sets of minimal fobidden subgraphs for single graphs of various types. We consider which graphs have the most and least minimal forbidden subgraphs for a given order. We also examine which graphs can be minimal forbidden subgraphs of another graph. The results we find are frequently surprising and unintuitive.

Keywords: forbidden subgraph characterization, hereditary class, complete bipartite graph