Contribution ID: 6

Type: not specified

## Counting Connected Sets and Connected Partitions of a Graph

Two related enumeration problems on vertex labeled graphs will be discussed. Given a graph G, we introduce and investigate the number C(G) of connected subsets of the vertex set and the number P(G) of connected partitions of the vertex set. By {it connected} we mean that the induced subgraphs are connected. The numbers C(G) and P(G) can be regarded as the graph analogs of the number of subsets and the number of set partitions, respectively, of an *n*-element set.

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