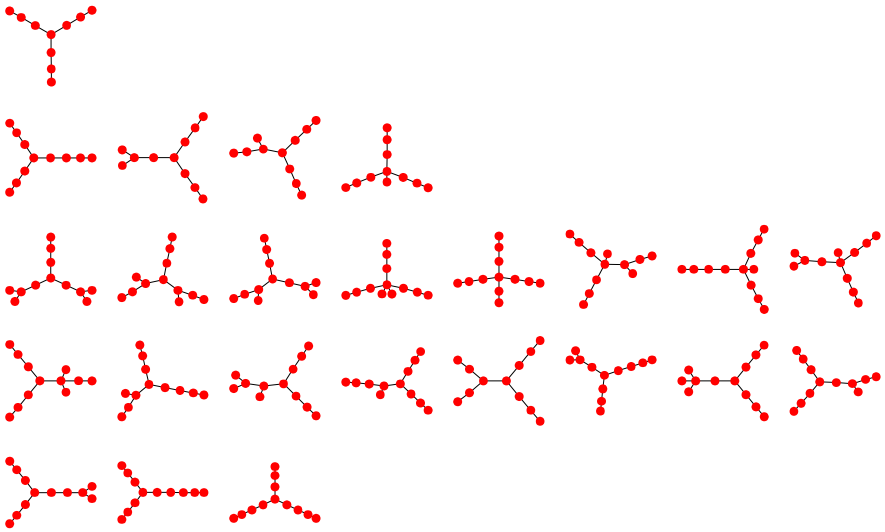
Lobster Graph



A lobster graph, lobster tree, or simply "lobster," is a tree having the property that the removal of leaf nodes leaves a caterpillar graph (Gallian 2007). The numbers of lobsters on $n = 1, 2, \ldots$ are 1, 1, 1, 2, 3, 6, 11, 23, 47, 105, 231, 532, 1224, 2872, ... (OEIS A130131), and the corresponding numbers of nonlobsters are 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 4, 19, 77, 287, ... (OEIS A130132; the first few of which are illustrated above). Precomputed properties of a number of lobster trees are implemented in the Wolfram Language as GraphData["Lobster"].

SEE ALSO

Banana Tree, Caterpillar Graph, Polyiamond, Tree

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Lobster Graph

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SUBJECT CLASSIFICATIONS

Discrete Mathematics › Graph Theory › Simple Graphs › Uniquely Colorable Graphs ›

History and Terminology › Disciplinary Terminology › Biological Terminology ›

Discrete Mathematics › Graph Theory › Trees ›