



planetmath.org

Math for the people, by the people.

Wagner's theorem

Canonical name	WagnersTheorem
Date of creation	2013-03-22 12:31:49
Last modified on	2013-03-22 12:31:49
Owner	Mathprof (13753)
Last modified by	Mathprof (13753)
Numerical id	7
Author	Mathprof (13753)
Entry type	Theorem
Classification	msc 05C99
Related topic	PlanarGraph
Related topic	KuratowskisTheorem

Theorem 1 (Wagner) *A graph is planar if and only if it contains neither K_5 nor $K_{3,3}$ as a minor, where K_5 is the complete graph of order 5 and $K_{3,3}$ is the complete bipartite graph of order 6.*

Wagner's theorem is to Kuratowski's theorem.