



planetmath.org

Math for the people, by the people.

Bondy and Chvátal theorem

Canonical name	BondyAndChvatalTheorem
Date of creation	2013-03-22 11:52:57
Last modified on	2013-03-22 11:52:57
Owner	drini (3)
Last modified by	drini (3)
Numerical id	9
Author	drini (3)
Entry type	Theorem
Classification	msc 05C45
Classification	msc 81P99
Classification	msc 81S30
Classification	msc 81S99
Classification	msc 81-00
Classification	msc 81S05
Classification	msc 81P15
Related topic	HamiltonianGraph
Related topic	OresTheorem

**Bondy and Chvátal's theorem.**

Let  $G$  be a graph of order  $n \geq 3$  and suppose that  $u$  and  $v$  are distinct non adjacent vertices such that  $\deg(u) + \deg(v) \geq n$ .

Then  $G$  is Hamiltonian if and only if  $G + uv$  is Hamiltonian.