



planetmath.org

Math for the people, by the people.

neighborhood (of a vertex)

Canonical name	NeighborhoodofAVertex
Date of creation	2013-03-22 11:58:03
Last modified on	2013-03-22 11:58:03
Owner	digitalis (76)
Last modified by	digitalis (76)
Numerical id	10
Author	digitalis (76)
Entry type	Definition
Classification	msc 05C99
Synonym	neighborhood
Related topic	Graph

For a graph G , the set of vertices adjacent to a vertex $x \in G$, the *neighborhood* of x , is denoted by $\Gamma(x)$. Occasionally one calls $\Gamma(x)$ the *open* neighborhood of x , and $\Gamma \cup \{x\}$ the *closed* neighborhood of x .

Adapted with permission of the author from *Modern Graph Theory* by Béla Bollobás, published by Springer-Verlag New York, Inc., 1998.