



planetmath.org

Math for the people, by the people.

block

Canonical name	Block
Date of creation	2013-03-22 12:32:00
Last modified on	2013-03-22 12:32:00
Owner	digitalis (76)
Last modified by	digitalis (76)
Numerical id	4
Author	digitalis (76)
Entry type	Definition
Classification	msc 05C99
Related topic	Cutvertex
Related topic	Bridge

A subgraph  $B$  of a graph  $G$  is a *block of  $G$*  if either it is a bridge (together with the vertices incident with the bridge) or else it is a maximal 2-connected subgraph of  $G$ .

Any two blocks of a graph  $G$  have at most one vertex in common. Also, every vertex belonging to at least two blocks is a cutvertex of  $G$ , and, conversely, every cutvertex belongs to at least two blocks.

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