

ZMATH 2002e.04365

Pisanski, Tomaž; Randić, Milan

Bridges between geometry and graph theory.

Gorini, Catherine A., Geometry at work. Mathematical Association of America, Washington, DC (ISBN 0-88385-164-4). 174-194 (2000).

Graph theory owes many powerful ideas and constructions to geometry. Several well-known families of graphs arise as intersection graphs of certain geometric objects. Skeleta of polyhedra are natural sources of graphs. Operations on polyhedra and maps give rise to various interesting graphs. Another source of graphs are geometric configurations where the relation of incidence determines the adjacency in the graph. Interesting graphs possess some inner structure which allows them to be described by labeling smaller graphs. The notion of covering graphs is explored. (Authors' abstract)

Classification: K35