

MATH 401/801: GRAPH THEORY

Instructor: Professor M. Ram Murty, Room 405, Jeffery Hall
Text: A beginner's guide to graph theory, W. D. Wallis, Second
Edition, Birkhäuser, 2007.

Topics to be covered include: basic notions of graphs, adjacency matrices, Eulerian graphs, bipartite graphs, trees, Möbius inversion and graph coloring, planar graphs, the map coloring problem, regular graphs, Cayley graphs, expander graphs and Ramanujan graphs. The grade will be based on five assignments.