

0366.3267 Graph Theory, Fall Semester 2014

List of Theorems

- Cayley's Formula
- Mader's Theorem (large degrees imply a subgraph of large connectivity)
- Euler's Theorem (about Eulerian graphs)
- Dirac's Theorem for Hamilton cycles
- The Chvátal-Erdős Theorem
- Hall's Theorem
- König's Theorem: In any bipartite graph, the maximum size of a matching is equal to the minimum size of a vertex cover
- Tutte's Theorem
- Petersen's Theorem
- Brooks' Theorem
- The chromatic index of any bipartite graph is equal to its maximum degree
- Vizing's Theorem
- Turán's Theorem
- Ramsey's Theorem
- Erdős' lower bound for the Ramsey number $R(k, k)$
- Euler's Formula for planar connected graphs
- Five-colorability of planar graphs