

Due Friday, February 21, 2014

Students in section X13 (three credit hours) need to solve any four of the following five problems. Students in section X14 (four credit hours) must solve all five problems.

1. Prove that each of the properties below characterizes forests.
 - a) Every induced subgraph of G has a vertex of degree at most 1.
 - b) The intersection of any two paths in G is either empty or is a path.
 - c) The number of components of G is the number of vertices minus the number of edges.
2. # 2.1.27 in the book.
3. # 2.1.29 in the book.
4. # 2.1.36 in the book.
5. # 2.1.39 in the book.

Problems below review basic concepts and their ideas could be used in the tests.

WARMUP PROBLEMS:

Section 2.1 # 1, 2, 4, 6, 13.

OTHER INTERESTING PROBLEMS:

Section 2.1: # 15, 19, 26, 28, 31, 35, 37, 44, 50, 52, 53, 55.