

HOMEWORK 1 (MATH 180, SPRING 2016)

Read: MN (Second ed.), background sections 1.1-4 and 3.1-3, new material sections 4.1, 4.2

Solve: Exc 1a, 2, 4, 6 in §4.1, 1, 2, 8, 10 in §4.2, and

I. Draw all (non-isomorphic) graphs on 5 vertices with 5 edges. Explain why they are not isomorphic.

II. Find the number of subgraphs of K_6 isomorphic to each of the following: K_4 , O_3 , P_4 , $K_{2,3}$.

This Homework is due Wednesday April 6, at 12:59:59 pm. (right before class). Please read the collaboration policy on the course web page. Make sure you write your name in the beginning and your collaborators' names at the end. Box all answers. Remember that answers are not enough, you also need to provide an explanation exhibiting your logic.

P.S. Each item above has the same weight.