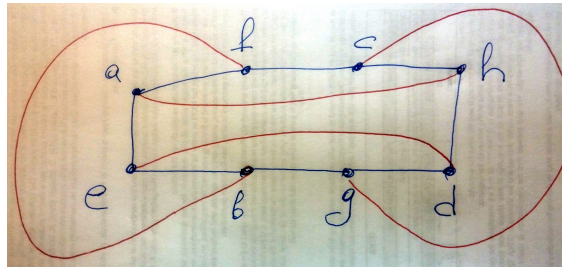


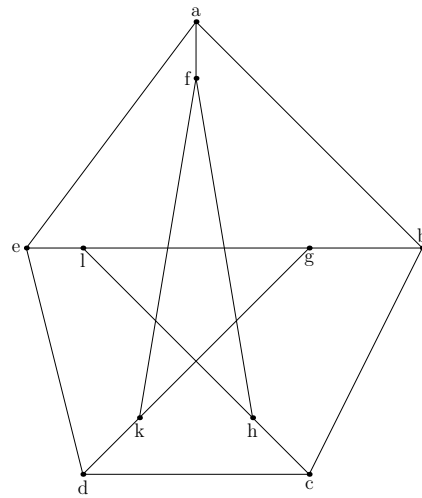
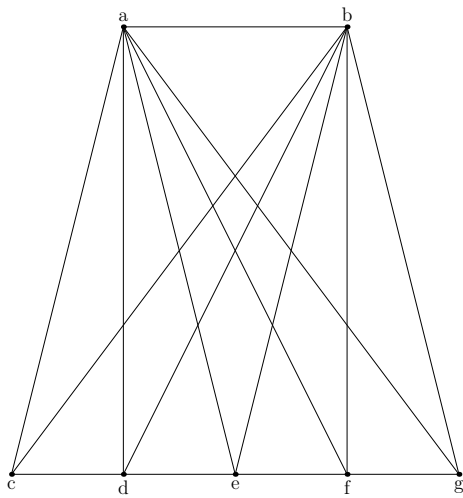
Graph Theory and Combinatorics MATH-42021/52021.
Home Work 2, due on Saturday, June 13
Instructor: Prof. Artem Zvavitch
13 points (yes, 3 extra points!)

Problem 1. Determine whether the following graph is bipartite. If so, give the partition into the left and right vertices.



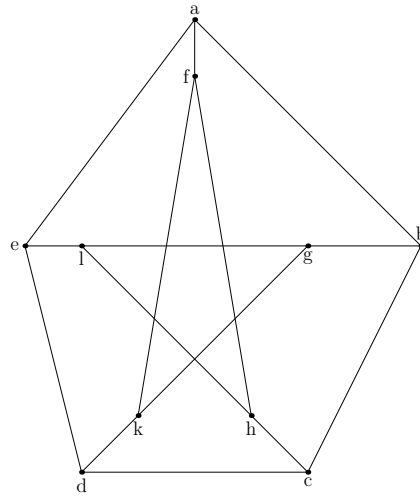
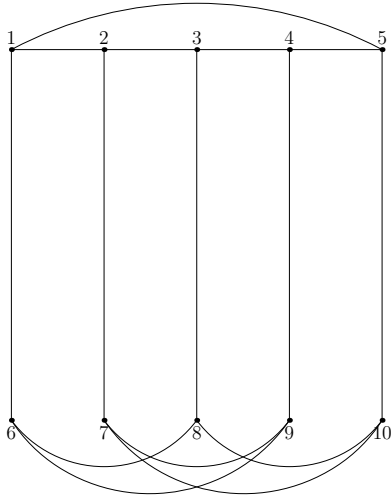
Problem 2. If a graph G has v vertices, all of which but one have odd degree, how many vertices of odd degree are there in \overline{G} , the compliment of G ?

Problem 3. Please, decide if the following two graphs are planar or not.



NEXT PAGE, PLEASE

Problem 4. Please, decide if the following two graphs are isomorphic or not.



Problem 5. Please, decide if the following graph is planar or not.

