## Graph Theory and Combinatorics MATH-42021/52021.

Home Work 2, due on Tuesday June 21
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 $\bar{G}$, the compliment of $G$ ?

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


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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.


