MATH 3012, Quiz 2

June 10, 2013

Name: _____ **GTID:**_____

Problem 1 (5 points).
(a) Is it true that every Eulerian graph is also Hamiltonian? If your answer is "yes", then give a proof; if your answer is "no", then give a counterexample.

(b) Is it true that every Hamiltonian graph is also Eulerian? If your answer is "yes", then give a proof; if your answer is "no", then give a counterexample.

Bonus Credit Problem (2 points).
Does Dirac Theorem still hold if $\frac{n}{2}$ is replaced by $\frac{n-1}{2}$? If your answer is "yes", then give a proof; if your answer is "no", then give a counterexample.