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ECE 6095-4121
Problem Set # 7
(Due November 28, 2012)

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1. For the inverted pendulum problem, using a time step h=0.18 sec, find the optimal gain, K^*, when R=0.1, 0.5, and 1. Assume Q has weights of 1 for angular position and distance only. Find the closed-loop poles of the system with each value of R. Plot Bode diagrams and find phase margins with each value of R. Discuss your results.