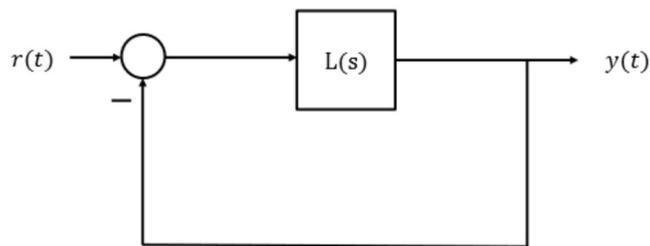**MAE171A Homework #5 Due 8/7/2019**

Please note:

- You can collaborate with other class members but you must hand in your own analysis and plots.

- This homework is Due 8/7/2019 at the beginning of Lecture.

1. Sketch the root locus with respect to $K > 0$ for the following system.

(a) $L(s) = \dfrac{K}{s^2(s+1)(s+5)}$

(b) $L(s) = \dfrac{K(s+2)}{s^2(s+10)}$

(c) $L(s) = \dfrac{K(s+1)}{s(s-3)}$

Verify your answer using Matlab.

2. 5.9   Sketch the root locus with respect to $\alpha > 0$.

3. 6.2

4. 6.3 (e)

5. 6.7 (a)

6. 6.9