Homework

Steve Mazza

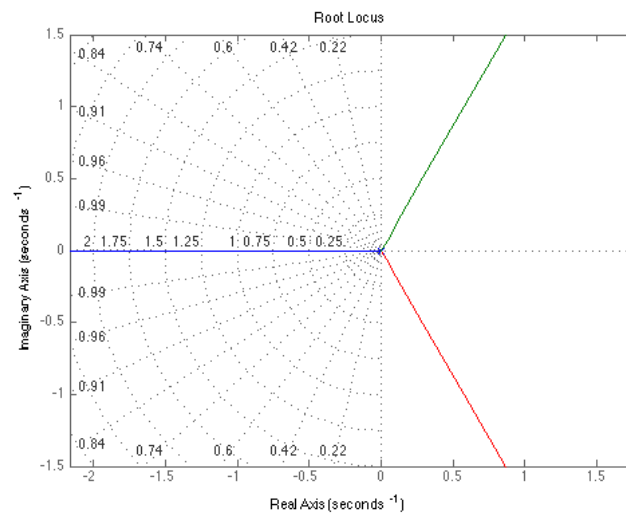August 4, 2013

Midterm Project

Problem 1

Problem 2

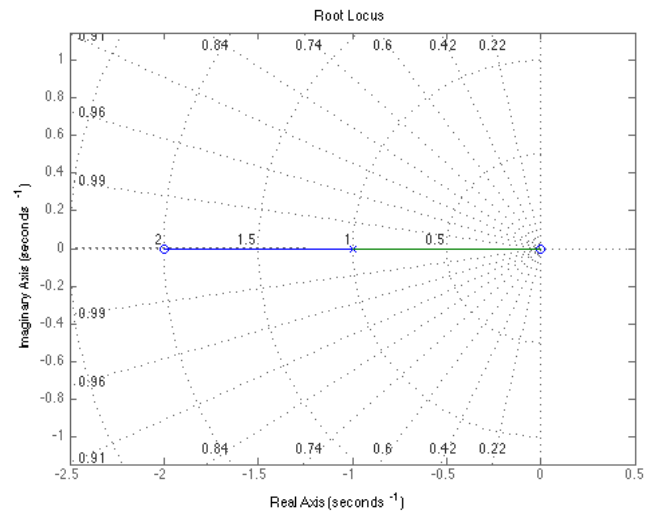# Homework 7

Problem 1

Root-locus plots of the following functions...
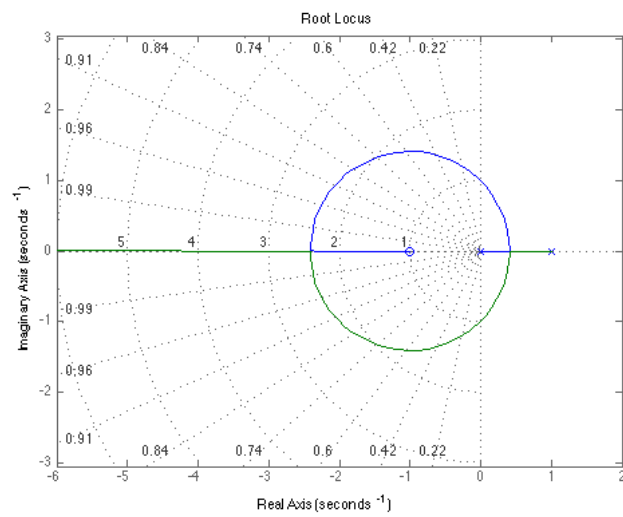
(a)

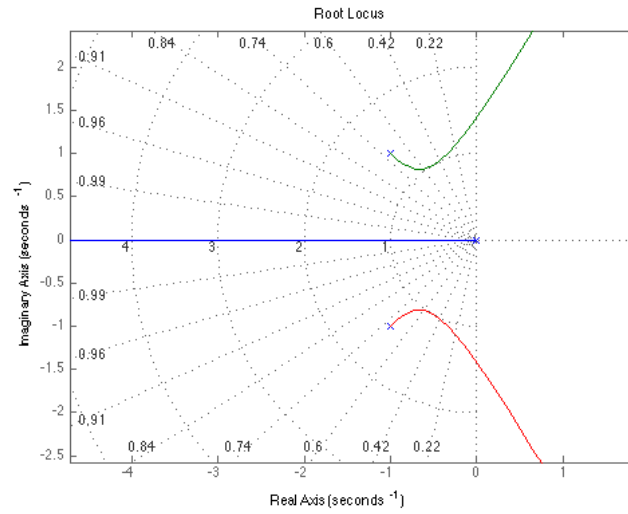$$G(s) = \frac{1}{(s+0)^3}$$

(b)

$$G(s) = \frac{(s+0)(s+2)}{(s+1)^2}$$
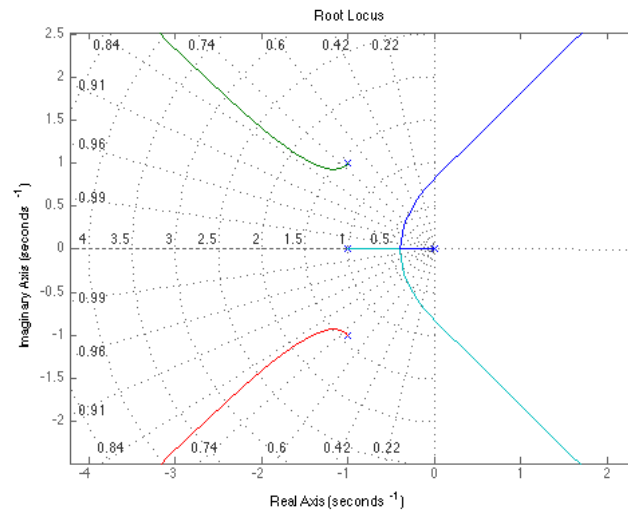
(c)

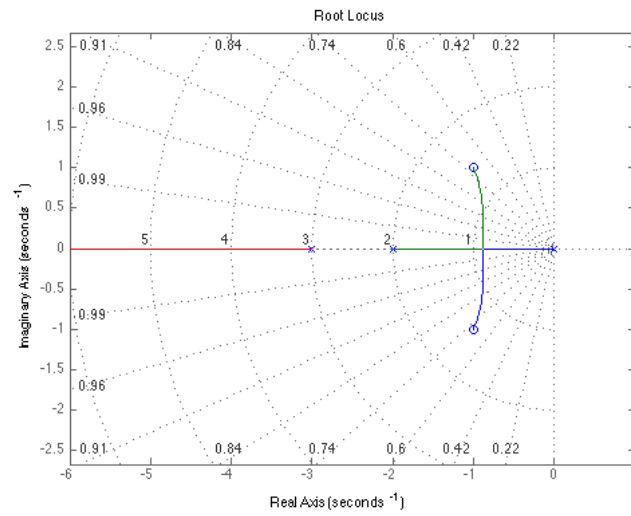$$G(s) = \frac{s+1}{(s+0)(s-1)}$$

2

(d)

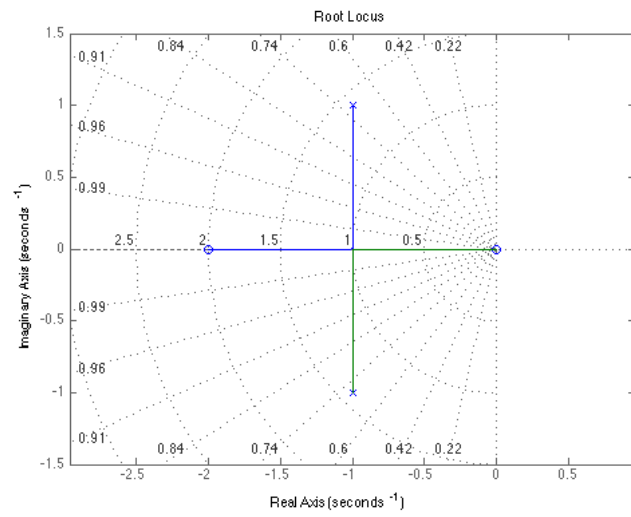$$G(s) = \frac{1}{(s+0)(s+1+i)(s+1-i)}$$

(e)

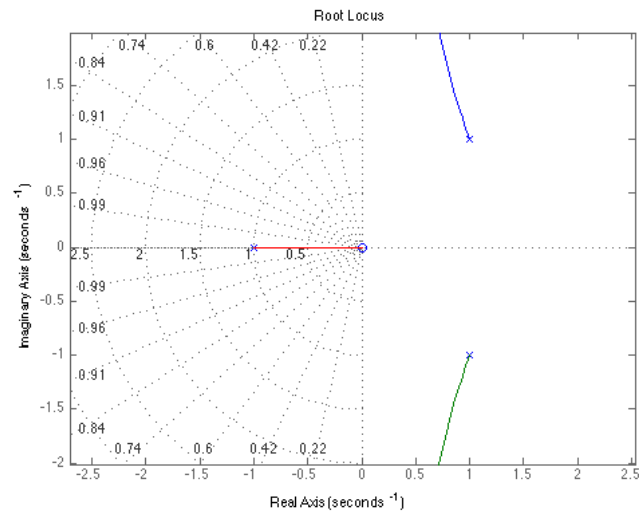$$G(s) = \frac{1}{(s+0)(s+1+i)(s+1-i)(s+1)}$$

3

(f)

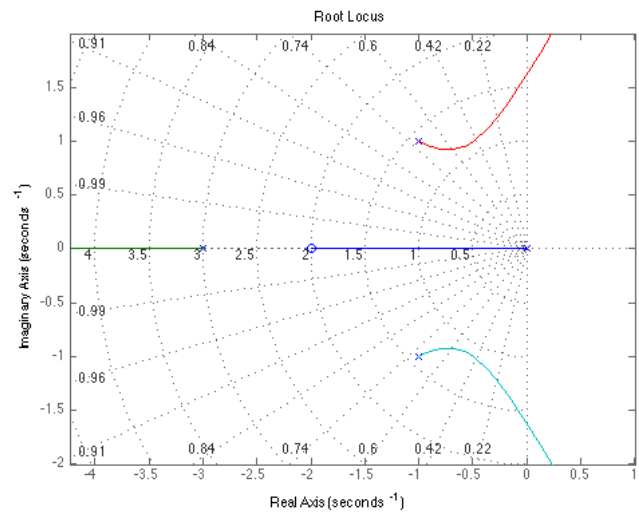$$G(s) = \frac{(s+1-i)(s+1+i)}{(s+0)(s+2)(s+3)}$$

(g)

$$G(s) = \frac{(s+0)(s+2)}{(s+1-i)(s+1+i)}$$

4

(h)

$$G(s) = \frac{(s+0)}{(s+1)(s-1-i)(s-1+i)}$$

(i)

$$G(s) = \frac{(s+2)}{(s+0)(s+3)(s+1-i)(s+1+i)}$$

5

Problem 4

Problem 5