Control System Homework 7

1.

CP9.3 Using the nichols function, obtain the Nichols chart with a grid for the following transfer functions:

(a)
$$G(s) = \frac{1}{s + 0.2}$$
;

(b)
$$G(s) = \frac{1}{s^2 + 2s + 1}$$
;

(c)
$$G(s) = \frac{6}{s^3 + 6s^2 + 11s + 6}$$
.

Determine the approximate phase and gain margins from the Nichols charts and label the charts accordingly.