

AOE 3034

Vibration & Control

HW Set 1

24 August 1999

1. Consider the complex-valued function

$$F(s) \equiv \frac{1}{(s+5)}$$

Evaluate this function along the positive imaginary-axis (*ie.* $s = j\omega$, $\omega \geq 0$). Make a *log-log* plot of the modulus $|F(j\omega)|$ against ω .

2. Repeat the above calculations for

$$F(s) \equiv \frac{(s+1)}{(s+5)}.$$

3. Ogata, B-2-2a.
4. Ogata, B-2-6.
5. Ogata, B-2-8.
6. Ogata, B-2-15a.
7. Ogata, B-2-18.