

# ECE311

## Homework 2

### Problems

Determine the stability of the systems with the following characteristic equations:

a.  $s^5 + 3s^4 + 7s^3 + 20s^2 + 6s + 15 = 0$

b.  $2s^4 + s^3 + 3s^2 + 5s + 10 = 0$

c.  $s^5 + 2s^4 + 2s^3 + 4s^2 + 11s + 10 = 0$

d.  $s^5 + 2s^4 + 24s^3 + 48s^2 - 25s - 50 = 0$