EE 451: Homework 3

1. Consider the z-transform

$$G(z) = \frac{(z - 0.5)(z - 0.78)(z + 2)(z + 3)}{(z^2 + 2z + 5)(z^2 - 4z + 13)} \tag{1}$$

   There are three nonoverlapping ROCs of the z-transform. Discuss the type of sequences associated with each of the three ROCs, i.e. left-sided, right-sided or two-sided. Is there a region for which the system is both causal and stable? Discuss your answers.

2. #3.44 (a),(b),(c) from textbook

3. #3.46 from textbook