## **ECE 580**

## **HOMEWORK 1**

## Due Oct. 15, 2014

- 1. Show that Z(s) = (2s + 3)/(s + 1) is a positive real function. Find a circuit which realizes it.
- 2. Find a simple model in terms of impedances and controlled sources for the hybrid parameters  $h_{11}$ ,  $h_{12}$ ,  $h_{21}$  and  $h_{22}$ .