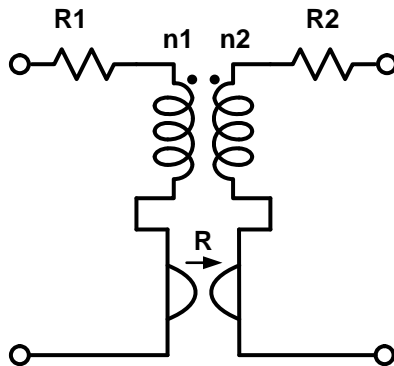


## ECE 580 HW-2

Due Oct 26, 2016 in the class

**Q1.** Calculate the S parameters of the following two port network.



**Q2.** For the circuit shown below, calculate the sensitivity of  $V_{out}$  to  $R1$ ,  $R2$ ,  $R3$ ,  $G_{m1}$ ,  $G_{m2}$  using the adjoint network concept.

**Note:** Use the ideal model for the transistors. Report result with sensitivity to  $R1$ ,  $R2$  and  $R3$  and **NOT**  $G1$ ,  $G2$ ,  $G3$ .

