## EE 206: Homework #5

Thevenin Equivalents, Maximum Power Transfer. Due Wed, Feb 20th

## **Thevenin Equivalents**

1) Find the Thevenin equivalent for the following circuit by transforming between Thevenin and Norton equivalents:



2) Find the Thevenin equivalent for the following circuit by transforming between Thevenin and Norton equivalents:



3) Find the Thevenin equivalent for the following circuit:



4) Find the Thevenin equivalent for the following circuit:



## **Maximum Power Transfer**

5) Determine R so that the maximum power is delivered to the load (R)



## PartSim

6) Simulate the circuit of problem 5. Determine the voltage and current at the load for

	V	Ι	Power
R = 0			
R = 50			
R = max power			
R = 100			
R = 200			
R = infinite			

7) Plot V vs. I on a graph and draw a line between these points. How does this line relate to the Thevenin equivalent for circuit #5?