**ECE231 Helpful Equations Sheet 1 (Fall 2016)**

 (amp = coulombs/sec)  (volt = joules/coulomb)

 (ohm = volt/amp)  (watt = joules/sec)

**Passive Sign Convention**   absorbed by “Comp. X”

**Kirchhoff’s Laws**: KVL:  KCL: 

**Resistor Comb.:** **SERIES** **PARALLEL**

  

**Voltage Divider**:  **Current Divider**: 

**Nodal Analysis**: (KCL)  **Mesh Analysis**: (KVL) 

**Source Transformation**: 

**Superposition**: 

**Thevenin Equivalent**: Given Networks A & B, the Thevenin of Network A is found from



**Maximum Power Transfer**: Set  

**Metric Prefixes**

Giga G 109

Mega M 106

Kilo k 103

Milli m 10-3

Micro  10-6

Nano n 10-9

Pico p 10-12