Ohm’s Law:
\[ V = iZ \]

Resistor Combinations:
(a) Series:
\[ Z_{eq} = \sum_{k=1}^{N} Z_k \]
(b) Parallel:
\[ \frac{1}{Z_{eq}} = \sum_{k=1}^{N} \frac{1}{Z_k} \]

\[ Z_{eq} = Z_1 + Z_2 \]
\[ Z_{eq} = \frac{Z_1 Z_2}{Z_1 + Z_2} \]

Voltage and Current Dividers:
\[ V_1 = \frac{V Z_1}{Z_1 + Z_2} \]
\[ V_2 = \frac{V Z_2}{Z_1 + Z_2} \]
\[ I_1 = \frac{IZ_2}{Z_1 + Z_2} \]
\[ I_2 = \frac{IZ_1}{Z_1 + Z_2} \]

Source transformation:
\[ I = \frac{V}{Z} \]

Thevenin Equivalent:
\[ V_T = V_{oc} \]
\[ Z_T = Z_{eq} \]

Max. Power Transferred:
\[ P_{\text{max}} = \frac{V^2}{8 R_T} \]