# Intro to ECE Toolbox

# Ohm's law and some basics

## 1.1 Questions

What's the voltage at X? What's the current through Y? What's the resistance of Z? How much power is used by F?

#### 1.2 Ohm's law

$$V = I \cdot F$$

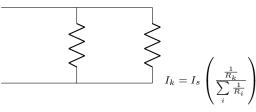
$$I = \frac{V}{R}$$

$$R = \frac{V}{I}$$

$$V = I \cdot R$$
  $I = \frac{V}{R}$   $R = \frac{V}{I}$   $P = RI^2 = VI$ 



### 1.3 Current Division



# 1.4 Voltage Division



- 1.5 Resistor Reduction
- 1.6 Component Order