



Chapter 18

Direct Current Circuits



Sources of emf

- The source that maintains the current in a closed circuit is called a source of *emf*
 - Any devices that increase the potential energy of charges circulating in circuits are sources of emf
 - Examples include batteries and generators
- SI units are Volts
 - The emf is the work done per unit charge

emf and Internal Resistance

- A real battery has some internal resistance
- Therefore, the terminal voltage is not equal to the emf

