

Reminders 11-26-07:

- Chapter 10 and 11 Quiz Wednesday.
- Homework 10 Due 11/26
- Homework 11 Due 11/29
- Homework 12 Due 12/4
- Exam 4 12/5.

Objectives:

- Heating and Cooling Processes
- Heat Transfer Processes
 - Convection
 - Conduction
 - Radiation
- Work and Energy
- PV Diagrams

Ideal absorbers } Black bodies
 Ideal Emitters }
 Rate in which energy is

$$P = \sigma A \epsilon_o (T^4 - T_{\text{surroundings}}^4)$$

σ = Stefan Boltzmann constant = 5.670×10

$^{-8} \text{ W m}^{-2} \text{ K}^{-4}$

A = surface area of radiating body

ϵ_o = emissivity of object (value is 1 for blackbodies (perfect absorbers or radiators;
 value is zero for perfect reflectors)