

ME 323, Spring 2008, Thurs. June 3

Homework #10 (Extra Credit), due Monday June 9 (11 AM), (text: Incropera & DeWitt, ID)

Reading (ID) Chpts 12 and 13: Radiation Heat Transfer

12.1-12.7, skim rest

13.1-13.4, skim rest

Radiation

- Overview of Radiation, terms, mechanisms
- Radiation exchange between surfaces, view factor
- Blackbody spectral emissive power
- Surface emission
- Radiation exchange: enclosures, resistor analogy
- Surface absorption, reflection, transmission

Problems (ID):

12.1,

12.2,a,b only

12.13a only

13.1 (a-g only for 6th ed.)

13.2

13.10

13.21

13.53 a,b,c only