

ME 323, Spring 2008, Thu. May 22

Homework #7, due Thu. May 29 beginning class, (text: Incropera & DeWitt, ID)

Reading (ID) Convection Heat Transfer: External flow:

Read 7.1-7.4, eqs 7.23, 7.30, 7.33, “skim” the rest

Problem (ID):

7.2 a,b,c only

7.15

7.37 For part b) looks like an integration is needed!? Think about the meaning of x for velocity B.L. and thermal B.L. Are they the same? (See section 7.2.4) Set up integral, but don't solve. Extra credit: solve integral numerically.

7.47 a,b,c only (use Churchill-Bernstein correlation)