Chemical Engineering 201
Fall 2002

Midterm # 4

Name _____

Problem # 1 _____

Problem # 2 _____

Problem # 3 _____

Problem One (25 points):

If water on your stove is boiling at 89.7^{o}C, at what temperature (^{o}F) would ethanol boil?

Problem Two (40 points):

1 Liter of hexane at 10^{o}C is burned to a fractional conversion of 60% when mixed with 35% excess air. What are the mole fractions of all chemicals in the product?

Problem Three: (35 points)

Using compressibility factors, find the density of air in Antarctica at -15^{o}C and 1.05 atm.