SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY
Department of Materials and Metallurgical Engineering

Met 422   Chapter 03   HMWK 03B

Submit the following problems from Poirier and Geiger. This is a 10-point assignment.
Please, put your name on the top right of this sheet and place this sheet on top of your work when submitting. You may start your work on this sheet if you like.

Solve at least one of the below problems using Excel® or MathCad®.

1. Textbook Problem 3.10
2. Textbook Problem 3.21
3. Textbook Problem 3.23
4. For a bed of 1 cm diameter marbles with a density of 2.7 g/cm^3,
    a) What is the minimum fluidization velocity to fluidize the bed?
    b) What is the V_o to make the void fraction 1?
    c) What is the V_o to make the void fraction 0.6?
   Assume dry air at 500 K is being used.