(100 points)
Stress and Strain I

5-1. Turcotte and Schubert Problem 2-3

5-2. Assuming a 75 km long thrust sheet, a mean crustal density of 2.7 g/cm³, and a coefficient of friction of 0.04, calculate the tectonic stress required to emplace this thrust sheet.

5-3. a) Turcotte and Schubert Problem 2-18

b) Using the expressions derived in part a), plot gravitational acceleration as a function of depth from the surface to the core of Earth. Email Matt (fouch@asu.edu) a copy of the program or spreadsheet you used to perform the calculations and create the plot.

5-4. Turcotte and Schubert Problem 2-22