

Math 261 and CS 261 Fall 2011

Assignment #8

This assignment is due at the beginning of class on **Friday, December 2, 2011**.

1. Write the matlab/octave code to perform the relaxation method to solve the heat disbursement on a rectangular plate where the top and bottom are set to one and the remaining points on the left and right side are zero.
2. Manually solve for the 4×4 square plate.
3. Manually solve for the 4×6 rectangular plate.
4. Use the above cases to test your matlab/octave program.
5. Use your matlab program to determine the disbursement on a 8×10 plate. You will need to use a sufficient number of iterations to ensure 5 decimal places of convergence.

Please hand in:

- your matlab/octave code. State if you used matlab or octave for your assignment.
- your manual solutions for 2 and 3 above.
- your output for question 5.