Programming Project, Part III

General Description:
In this third part of the project, you find the theoretical value of the optimal threshold for switching from the recursive algorithm to the basic algorithm for selection, implemented in Part I and Part II of this project. You will test this threshold with experiments.

Detailed Description:
Take the values that you obtained in Part I and Part II to calculate a theoretical optimal threshold for switching from the recursive algorithm to the basic algorithm. Explain how you reach this theoretical value.

Make some experiments with the calculated optimal threshold, and compare with smaller and larger values of the threshold. If the experiments do not match the theoretical analysis, revisit your constants calculated in part I and II. If still there is no match, explain in your opinion why it happened and/or what you could do.

Turn in:

- A listing of your program
- A report that explains how you made the analysis and the results

Turn in by sending an e-mail to longpre@utep.edu. Please use the subject line “CSxxxx Program Assignment 3 submission”.

Due date: November 12. The penalty is 10% for each day late up to one week late. No homework accepted after one week.