Homework #9
Gprof Profiler
Due Monday, November 24, 2003

Name: _____

Lab Time: _____

Grade: _____/10

GPROF

The purpose of this homework is to help you become familiar with the output of the GPROF profiler. A sample output can be found on the reference material section of the class web page. Use this output to answer the following questions. This output is for a program that implements the QuickSort sorting algorithm.

1. In the flat profile, what metric is used to order the functions? (1 pt.)

2. What does that metric mean? (1 pt.)

3. In the call graph, what metric is used to order the functions? (1 pt.)

4. How does this metric differ from the one in the flat profile? (1 pt.)

5. How does this explain why the function `main` is ordered differently in the two profiles? (1 pt.)

6. In the flat profile, what is the difference between "self ms/call" and "total ms/call"? (1 pt.)

7. How does this explain the large difference in those times for function `main`? (1 pt.)

8. How many calls were made to function `Swap`, and what is the percentage of total running time spent in `Swap`? (1 pt.)

   If there were so many calls to `Swap` and a good percentage of the total running time was spent in `Swap`, why are the entries for "self ms/call" and "total ms/call" zero? (1 pt.)

9. Approximately how many elements are being sorted in this run? (1 pt.)