1. (10 pts) What are differentiates between a program, an executable, and a process?

2. (10 pts) What happens on a context switch? Should context switches happen frequently or infrequently? Explain your answer.

3. (20 pts) Using the fork(), waitpid(), and kill() system calls, write a program in which a parent creates two children. The parent then waits for the first child to complete, and kills the second when the first completes. After that, the parent exits.

4. (10 pts) What are the differences between user-level threads and kernel threads? Under what circumstances is one type better than the other?