

Chapte 1, page 40, problem 8:

The execution time could exceed the sum of the individual execution times if the system was unable to overlap I/O with processing, even across processes. That is, there will be times when the CPU is idle, yet the system is performing I/O for some of the processes.

Chapter 2, page 74, problem 3:

```
#include <stdio.h>
char promptString[] = "nutt shell >";
int main() {
    int chPID, thisChPID;
    int stat;
    printf("Parent: Welcome to Exercise 2.7.3\n");
    // Create a process
    if((chPID = fork()) == 0) {
        // This is the child
        printf("Child: Greetings, I am going to sleep ...");
        fflush(stdout);
        sleep(20);
        printf(" now awake after 20 seconds. Bye\n");
    }
    // Wait for the child to terminate
    printf("Parent: Waiting ...\n");
    thisChPID = wait(&stat);
    printf("Parent: Child terminated\n");
    exit(1);
}
```

Chapter 5, page 189: problem 11:

The blocks to be read are 97, 84, 155, 103, 96, and 197.

- FCFS steps across $13+71+52+7+101 = 244$ steps.
- SCAN visits the tracks in the order 97, 103, 155, 197, 199, 96, 84 incurring $6+52+42+2+103+12 = 217$ steps.
- LOOK visits the tracks in the order 97, 103, 155, 197, 96, 84 incurring $6+52+42+101+12 = 213$ steps.