“Our greatest weariness comes from work not done” - Eric Hoffer

1. Draw the recursion tree for $T(n) = 4T(n/2) + cn$ where $c$ is a constant and provide a tight asymptotic bound on its solution. Verify your bound by the substitution method.

2. Exercise 4.3-1

3. Exercise 4.3-2

4. Exercise 4.3-3

5. Exercise 4.3-4

6. Problem 4-1 (hint for part h: read the “Changing Variables” section in Chapter 4.1)

7. Extra Credit: Problem 4-6