

**Assignment #2:**  
**Due June 8**

1. Exercises 4.3-6, 4.3-9
2. Exercises 4.4-2, 4.4-6
3. Problem 4-3: (b), (c), and (f)
4. Problem 4-4
5. (Challenge Problem – Need not be turned in and solution will not be provided): Consider Case 3 of master theorem: (i)  $f(n) = \Omega(n^{\log_b a + \epsilon})$  for some  $\epsilon > 0$ ; and (ii)  $af(\frac{n}{b}) \leq cf(n)$  for some  $c < 1$  for  $n$  sufficiently large. Do we need both of these conditions or is one stronger than the other?