COMP 312
Assignment 1
Due 9:00 am, Thursday, September 17, 2009
All problems are of equal value.

Reading

Cormen, Leiserson, Rivest and Stein, Chapters 1, 2, & 3.

Practice

CLRS, 1.2-3, 1-1, 2.1-1, 2.1-2, 2.2-1, 2.2-4, 2.3-4, 2-4, 3.1-1...8, 3.2-1, 3.2-5, 3-1, 3-2, 3-3 (b), 3-4 (a)-(c), (h), 3-5, A-1

To Be Handed In

1. CLRS, 1.2-2
2. CLRS, 2.2-3
3. Express the running time (as a function of $n$) of the following pseudo-code algorithm using $\Theta$-notation.
   
   $$
   r = 0 
   \text{for } i = 0 \text{ to } n \text{ do} 
   \quad \text{for } j = 1 \text{ to } 2^{-i} \text{ do} 
   \quad \quad r = r + 1 
   $$

4. CLRS, 3-3 (a)
5. CLRS, 3-4 (d), (e), (f), (g)