

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 Θ -notation.

```
r = 0
for i = 0 to n do
  for j = 1 to 2i do
    r = r + 1
```

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