COSC 2010 / 2100 - Data Structures
Homework #2 - Big-O
Due: 2014 September 10, Noon.
This assignment is to be completed individually.
Submit a plain text file (.txt) or PDF (.pdf) through the `turnin` system on Morbius.

1. Describe the order of magnitude of each of the following functions using *Big-O notation*:

   (a) $n^2 + n + 1$

   (b) $3n^2 + 3n + 3$

   (c) $n^6 + 50n^5 + 100n^4 + 150n^3 + 200n^2 + 250n + 300$

   (d) $(n * (n + 2) * n^2)/5$

   (e) $2nlog_2n + 2n^2$

2. Chapter 1, problem 48 (p.61).

3. Chapter 1, problem 49 (p.61).

4. Chapter 1, problem 50 (p.61).

5. Chapter 1, problem 51 (p.62).

6. Chapter 2 of your textbook gives the full listing of two implementations of the `StringLog` ADT: `ArrayStringLog` (p.85) and `LinkedStringLog` (p.122). Use *Big-O notation* to describe the order of magnitude of each non-constructor method defined in both classes.