# Lab 5: Linked Lists Solution

## 2) Timing __len__ for linked lists vs. array-based lists

1. Most methods take longer to run on large inputs than on small inputs, although this is not always the case.

   Look at your code for your linked list method *__len__*.

   Do you expect it to take longer to run on a larger linked list than on a smaller one?

2. Pick one the following terms to relate the growth of *__len__*'s running time vs. input size, and justify.

   - constant, logarithmic, linear, quadratic, exponential

3. Complete the code in *time_lists.py* to measure how running time for your *__len__* method changes as the size of the linked list grows. Is it as you predicted?

   Now's let's assess and compare the performance of Python's built-in *list*. You can do this by simply adding it to the list of types that *list_class* iterates over. What do you notice about the behaviour of calling *len* on a built-in *list*?