CIS 15 Spring 2010 Lab III.4

1. Declare a dynamic point
   - Write a new class `dPoint` which contains two data members, a `point`, and a pointer to `dPoint`.
   - Since we are concentrating on dynamic memory here, we will break some C++ rules and make these members both `public`.

2. Dynamically declare one of these.
   - Dynamically declare an object of type `dPoint` using `new`
     Hint: You will need a pointer to keep track of this.
   - Set the value of the `x` and `y` members of the `point` member of your `dPoint` object.
   - Print out the `point` member of your `dPoint` object.

3. Now string these together
   - Declare a second `dPoint` object. So you don't lose track of it, use the pointer in the first `dPoint` object to store its address.
   - Set the `x` and `y` of the `point` in this new `dPoint`.
   - Print out the `point` member of the new `dPoint` object.

4. Towards a list
   - Write a new member function for `dPoint` which will add a new `dPoint` object and "attach it" by holding the address of the new object in the pointer of the original object.
   - Write a new member function for `dPoint` which will print out the value of its `point` member and the value of any the `point` members of any `dPoints` which it points to.

Reminder

- The class `point`
  - The point class contains two `private` data members `x` and `y`.
  - The class contains `public` functions `set(x, y)` to set the values of `x` and `y`, functions `getX(0` abd `getY()` to retrieve the values of `x` and `y`, and a function `print()` to print the values of `x` and `y`.