CIS 15 Spring 2010 Lab III.3

1. Call by value
   - Declare a point object `p` and intialise it. .
   - Print it out.
   - Write a function `void translate(point q, int n)` that adds the value of `n` to the `x` and `y` coordinates of the point and prints out the point.
   - Call the `translate` on `p`.
   - Print `p` out in `main()`.

2. Call by reference using references
   - Write a function `void translate2(point &q, int n)` that adds the value of `n` to the `x` and `y` coordinates of the point and prints out the point.
   - Call the `translate2` on `p`.
   - Print `p` out in `main()`.

3. Call by reference using pointers
   - Write a function `void translate3(point* q, int n)` that adds the value of `n` to the `x` and `y` coordinates of the point referenced by `q` and prints out the point.
   - Call the `translate3` on `p`.
   - Print `p` out in `main()`.

4. An array of points
   - Declare an array `pArray` of `point` objects and initialise the members of the array.
   - Print each member of the array out.
   - Pass each member of the array in turn to `translate` and then print the array out again.
   - Write a function `void translate4(point q[], int n)` that adds the value of `n` to the `x` and `y` coordinates of the every point in the array `q` and then prints all the `point` objects in the array..
   - Call the function on `pArray`.
   - Print out the members of `pArray`.

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`.