CIS 15 Spring 2010 Lab II.3

These questions build on the classes you wrote in the previous lab. Hopefully you have those with you.

1. A first constructor.

   - This function extends class `point` (if you forgot `point`, it is specified below).
   - The constructor should take no arguments and it should set the value of `x` and `y` to 0.
   - Write a program that declares an object of class `point` and prints out the values of `x` and `y` to test that the constructor works.

2. A second constructor.

   - Write a new constructor for `point` which takes two numerical arguments.
   - Use these arguments to set the value of `x` and `y`.
   - Modify your program so that it tests both constructors.

3. A third constructor.

   - Write a third constructor for `point`, one that has a single integer argument.
   - The constructor should set the value of `x` and `y` to a random number between 0 and the value of its parameter.
   - Modify your program so that it tests all three constructors.

4. Constructors for `triangle`.

   - Write a constructor for the `triangle` class.
   - The constructor should initialise the value of `x` and `y` for each point.
   - Modify your program so that it tests this new constructor.

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`.

- The class `triangle`.

  - The class `triangle` has 3 private data members, each of which is a `point` object.
  - The class contains the public function `print` which prints the `x` and `y` values of the three `point` members of `triangle`.