Exercises – Operator Overloading

Exercises:

1. Create a Position class. This should have a definition in a .h file and function bodies in a .cpp file. It should contain the following:
   1. Floats for x and y (they should be private)
   2. Default constructor and a constructor which allows x and y to be initialized when the class is instantiated
   3. Functions to read x and y.
2. Add a function which overloads the + and - operator. This allows us to conveniently add positions and velocities together instead of needing to add the X and the Y values separately.
3. Add a functions which overload the += and -= operator (you should be able to reuse the + and – functions you created earlier).
4. Overload the equivalence operator so that two Position objects can easily be compared
5. Overload the other operators in ways which you think are appropriate (be careful here, it’s easy to get carried away. Remember that the whole point of operator overloading is to make the code easier to understand!)
6. There are two minus operators to overload. Why? Overload them both.