

Assignment 9

01/19/2017

1. Problem 10.11 (Polynomial Class)
2. Beginning with the `Vec` class that we created in assignment #3 (you can download a solution here: [Vec.h](#) [Vec.cpp](#)), add support for the following operators:
 - `operator+` – for two `Vec` objects `v` and `w`, the result of `v + w` should be a `Vec` object that contains the component-wise sum of the two objects. (The `x` component is the sum of the two `x` components, etc.)
 - `operator+=` – `v += w` should change `v` to contain the component-wise sum.
 - `operator-` – similar to `operator+`
 - `operator-=` – similar to `operator+=`
 - `operator*` – `v * w` should produce the component-wise product.
 - `operator*=` – `v *= w` should change `v` to be the component-wise product.
 - `operator*` – `v * x` (where `x` is a `double` and `v` is a `Vec`) should produce a `Vec` that has each component of `v` multiplied by `x`.
 - `operator*=` – `v *= x` changes `v` such that each component is multiplied by `x`
 - `operator==` – `v == w` produces a value of `true` if all three components are exactly equal.
 - `operator<<` – `cout << v` should send to the standard out a cleanly formatted version of the `Vec` object similar to the following `(1.2340, 0.9561, 3.0000)` (each component should be expressed with 4 decimal places.
 - `operator[]` – such that `v[0]` produces the `x` component, `v[1]` produces the `y` and `v[2]` produces the `z` component.
3. Beginning with the `SingleLinkedListOfString` class (solution is available here: [SingleLinkedListOfString.cpp](#) [SingleLinkedListOfString.h](#)). Add and test a copy constructor and an overloaded assignment operator. These must have semantics that make completely independent (deep) copies.

Submit your program and via Sakai submission system and turn in a printed copy of your code.