

# Homework 07

[Re-submit Assignment](#)**Due** Mar 16 by 11:59pm**Points** 10**Submitting** a file upload

In HW5, we have developed a class called **USLength** that is an abstract data type (ADT) for a length. In this HW, we modify the class.

- Divide your class code into two parts:
  - **USLength** class header file **USLength.h**
  - **USLength** class implementation file **USLength.cpp**
- Determine **namespace name** as you like. (ex. your name, your initial...)
  - Define your **USLength** class under the namespace.
- Add following overloaded operators.
  - operator + to compute (**USLength** object) + (**USLength** object)
  - operator += to compute (**USLength** object) += (**USLength** object)
  - operator \* to compute (**USLength** object) \* (int)
  - operator \* to compute (int) \* (**USLength** object)
  - operator / to compute (**USLength** object) / (int)
  - operator \*= to compute (**USLength** object) \*= (int)
  - operator /= to compute (**USLength** object) /= (int)
  - operator < to evaluate (**USLength** object) < (**USLength** object)
  - operator <= to evaluate (**USLength** object) <= (**USLength** object)
  - operator > to evaluate (**USLength** object) > (**USLength** object)
  - operator >= to evaluate (**USLength** object) >= (**USLength** object)
  - operator == to evaluate (**USLength** object) == (**USLength** object)
  - operator << to perform (ostream object) << (**USLength** object)
- Use call-by-reference for input arguments if possible.
- Add “**const**” modifier for input arguments that are not modified in function body.
- Add “**const**” modifier to member functions that do not change member variables.
- Develop **main.cpp** to test your **USLength** class.
- You will have **three files** to upload.

