C201 Homework #10 (finally last one) Due 4/28/14

***NOTE - No homeworks will be accepted after Wednesday, April 30th , class time.**

This assignment calls for creating a dynamically implemented version of the MyFloat class that you implemented in earlier homeworks. The following changes should be made.

1) Name the file containing the class "MyFloatD.cpp"

2) Change your implementation so that MyFloats are dynamically allocated. The new implementation will allow declarations such as:

```
MyFloat X1(50);      // creates a 50 digit MyFloat
MyFloat X2;          // creates a 10 digit MyFloat (the default size)
```

3) You need only implement the following functions:

```
~MyFloat();                                  // class destructor

MyFloat( const MyFloat &S);                  // class copy constructor,  deep copy
MyFloat();                                   // class default length constructor for MyFloat
MyFloat( unsigned MaximumLength);            // class constructor, creates any length MyFloats

MyFloat& operator= (char Rhs[]);             // allows X = "0.12345";
MyFloat& operator= (const MyFloat &Rhs);     // allows deep copy X = Y;

friend ostream& operator<< (ostream &Sout, const MyFloat &X);
friend istream& operator>> (istream &In, MyFloat &X);

MyFloat operator+(const MyFloat &Rhs);
int operator==(const MyFloat &Rhs);
int operator> (const MyFloat& Rhs);
int Digits();
int MaxDigits();
```

NOTES and COMMENTS

*) Use the test driver from website, "TestDyMf.cpp" to test your functions.

*) Note that some of the member functions depend on others because of the way the test functions were written. Examine these dependencies before testing!

*) Try to anticipate the situations where overflow might occur and deal with them by allocating extra storage.

*) Look at dynamic program from stringdy.cpp for help.

*) Be careful when writing == and + as your old code assumes that the MyFloats have the same MaxNumberOfDigits.

*) Probably very helpful to use "+1" when creating dynamic arrays!

*) Have constructors initialize all dynamic array elements to zero.