

CS2370 – Assignment 1  
Due: 8pm Sat, Jan 23  
Worth: 50 points

## Date Class

Design an abstract data type called Date. As the name says, it should be able to (privately) store a date such as this:

1/1/2016

It should have the following methods and behaviors:

1. a default constructor
2. a constructor that accepts a month, a day, and a year
3. setters and getters for each private field
4. It should support printing using the stream insertion operator ( << ). The format it prints it in is up to you. (1/1/2016 or Jan 1, 2016 or 1-1-2016, etc.)  

```
cout << date1 << endl << date2 << endl;
```
5. It should support reading a date from the keyboard using the stream extraction operator ( >> ). The user should be able to enter 3 numbers (1 1 2016) which should be stored to mean 1/1/2016.
6. It should support the addition assignment operator ( += ) so that the following operation moves the date forward by 5 days:  

```
Date MLKholiday(1, 13, 2016);  
MLKholiday += 5;           // MLKholiday is now 1/18/2016
```
7. It should support the subtraction assignment operator ( -= ).  

```
Date bday(1, 3, 2016);  
bday -= 5;                 // bday is now 12/29/2015
```

This link should be helpful in figuring the number of days in each month including in leap years: <http://www.timeanddate.com/calendar/months/>

The above class should be in two separate files: Date.h and Date.cpp.

Your main method that tests the Date class should be in a third file.

Submit your source code (all three files) by 8pm Sat, January 23rd to Blackboard.