Detailed requirements as of 2/24/2016

1. Need a dayOfWeek method that takes 3 ints and returns a String.
2. Domain of acceptable inputs is (3,1,1900) through (12,31,2099), inclusive.

   2A. NOTE: We are using MMDDYYYY American standard throughout.

   2B. NOTE: Method must degrade gracefully if input is invalid. Invalid means out of domain or nonexistent date. For example, (2,29,2016) is valid, but (2,29,2017) is not.
3. Need a method, checkLeapYear, to check for leap year. This method should return a boolean.
4. Need an int method, lastTwoDigits, that returns the last 2 digits of a 4-digit year.
5. The dayOfWeek algorithm must add
   - the number of 12s in the last 2 digits
   - the remainder when last 2 digits are divided by 12
   - the number of 4s in the aforementioned remainder
   - the code for the month (0336 1462 5035)
   - the day (between 1 and 31, inclusive)
6. The dayOfWeek algorithm must subtract
   - 1 if it's a leap year && month is Jan. or Feb.
   - 1 if year is on or after 2000
7. Find remainder when (sum + some positive multiple of 7) is divided by 7. (NOTE: This guards against the 1/1/2000 bug.)
8. Return day of week: 0 = Sunday, 1 = Monday, . . . , 6 = Saturday.