Find the Day of the Week

Problem Description:

Write a program that will calculate the day of the week for any date between September 4, 1752 and Dec 31, 2399. To find the day of the week you first must determine whether the year was a leap year. In general, if a year is evenly divisible by 4, it is a leap year. However, there are exceptions. Century years, such as 1800 and 1900, are not leap years, despite the fact that they are divisible by 4. Furthermore, as an exception to the exception, a century year that is divisible by 400 (such as the year 2000) is a leap year. The algorithm for finding the day of the week requires several key numbers that can be obtained from the following tables.

Month	Key		Month	Key		Day	Key		Century	Key
Jan	1 (0 if Leap Year)		Jul	0		Sat	0		1700s	4
Feb	4 (3 if Leap Year)		Aug	3		Sun	1		1800s	2
Mar	4		Sep	6		Mon	2		1900s	0
Apr	0		Oct	1		Tue	3		2000s	6
May	2		Nov	4		Wed	4		2100s	4
Jun	5		Dec	6		Thr	5		2200s	2
						Fri	6		2300s	0

The algorithm works as follows: (We will use December 7, 1941, as an example)

Step 1: obtain the following 5 numbers
  1) The last two digits of the year   41
  2) The number from step 1 divided by 4 (ignore remainder)   10
  3) The month key (find from the table)   6
  4) The day of the month   7
  5) The century key (find from the table)   0

Step 2: add the five numbers   ------------
                                                                  64

Step 3: divide the sum by 7 and keep the remainder   64 / 7 = 9   r 1
Step 4: Find the remainder in the day key table to find the day of the week.

Example Output:

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Enter the day (1 - 31): 7
Enter the month (1 - 12): 12
Enter the year (170 - 2399): 1941

That day is a Sunday.
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Required Test Cases:

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4, 7, 1776              15, 1, 2000
4, 10, 1957             15, 1, 2001
20, 7, 1969             15, 1, 2004
25, 12, 2010            15, 1, 1900
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Skills: