

3-4-2015, 4-3-2015, Then, No More Until 2031

(Aziz S. Inan, Ph.D., Professor, Electrical Engineering, University of Portland, Portland, Oregon)
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If the full calendar date of this Wednesday, March 4, 2015 is expressed as 3-4-2015 (or simply, 342015), this date number only contains sequential digits 0, 1, 2, 3, 4 and 5, each appearing only once. This year contains two such sequential-digit calendar dates, the second one to occur on April 3, 2015, written as 4-3-2015 (or 432015).

In most other countries in the world where day-month-year instead of month-day-year date format is used, both of these two date numbers are also to occur, but in a reverse order: 4-3-2015 representing 4 March 2015 comes first followed by 3-4-2015 representing 3 April 2015 (see Table 1).

Calendar Date	Month-Day-Year	Day-Month-Year
March 4, 2015	3-4-2015	4-3-2015
April 3, 2015	4-3-2015	3-4-2015

Table 1. Sequential-Digit Calendar Dates in 2015.

Interestingly enough, last century did not have any such sequential-digit calendar dates. However, this century has an abundance of 48, as listed in Table 2. Note that 24 of these 48 calendar dates are expressed as six-digit dates (containing digits 0 to 5) indicated in red color and the other 24 are written as seven-digit dates (made of digits 0 to 6) indicated in blue color.

April 5, 2013 4-5-2013	May 4, 2013 5-4-2013	March 5, 2014 3-5-2014	May 3, 2014 5-3-2014	March 4, 2015 3-4-2015	April 3, 2015 4-3-2015	April 5, 2031 4-5-2031	May 4, 2031 5-4-2031
January 5, 2034 1-5-2034	May 1, 2034 5-1-2034	May 16, 2034 5-16-2034	June 15, 2034 6-15-2034	January 4, 2035 1-4-2035	April 1, 2035 4-1-2035	April 16, 2035 4-16-2035	June 14, 2035 6-14-2035
April 15, 2036 4-15-2036	May 14, 2036 5-14-2036	March 5, 2041 3-5-2041	May 3, 2041 5-3-2041	January 5, 2043 1-5-2043	May 1, 2043 5-1-2043	May 16, 2043 5-16-2043	June 15, 2043 6-15-2043
January 3, 2045 1-3-2045	March 1, 2045 3-1-2045	March 16, 2045 3-16-2045	June 13, 2045 6-13-2045	March 15, 2046 3-15-2046	May 13, 2046 5-13-2046	March 4, 2051 3-4-2051	April 3, 2051 4-3-2051
January 4, 2053 1-4-2053	April 1, 2053 4-1-2053	April 16, 2053 4-16-2053	June 14, 2053 6-14-2053	January 3, 2054 1-3-2054	March 1, 2054 3-1-2054	March 16, 2054 3-16-2054	June 13, 2054 6-13-2054
March 14, 2056 3-14-2056	April 13, 2056 4-13-2056	April 15, 2063 4-15-2063	May 14, 2063 5-14-2063	March 15, 2064 3-15-2064	May 13, 2064 5-13-2064	March 14, 2065 3-14-2065	April 13, 2065 4-13-2065

Table 2. Sequential-Digit Calendar Dates in the 21st Century.

After this year, no such sequential-digit calendar dates will occur until 2031, when there will be two more sequential-digit calendar dates (4-5-2031 and 5-4-2031) followed by four in 2034, two consisting of six digits (1-5-2034 and 5-1-2034) and the other two with seven digits (5-16-2034 and 6-15-2034). Most of the sequential-digit calendar dates to occur in this century are clustered between 2031 and 2065, 2065 being the last year when they will occur. So, such dates are still considered to be rare since they don't always occur, like from 2065 to 2103.

Sequential-digit calendar dates are like brainteasers and math puzzles. They are intellectual, intriguing, entertaining, and fun stuff that we can share with others. Also, they are certainly educational and have the potential to serve as a vehicle to attract students and others into mathematics and wonders of numbers.

Here are a few brainteaser questions I constructed related to sequential-digit calendar dates:

1. What was the last such sequential-digit calendar date that occurred in the second millennium? (Answer: 04-23-1765)
2. Which calendar date will be the first six-digit such calendar date made of only digits 0 to 5 in the next (22nd) century? (Answer: 4-5-2103)
3. Which calendar date will be the first seven-digit such calendar date made of only digits 0 to 6 in the next (22nd) century? (Answer: 5-06-2134)
4. Which calendar date will be the first eight-digit such calendar date (made of digits 0 to 7) in this (third) millennium? (Answer: 06-17-2345)
5. How many such dates exist in the 23rd century? (Answer: None)

I hope you can share this story with others, particularly on March 4th and April 3rd of this year.