Mental Calendar Part 3 of 3:
Century and Year Values

## Notes

The mental trick for calculating the day of the week only works for days on or after...

October 15, 1582

| Century <br> Values |  |
| :--- | :--- |
| 1500 |  |
| 1600 |  |
| 1700 |  |
| 1800 |  |
| 1900 |  |
| 2000 |  |
| 2100 |  |
| pattern continues |  |


| Month Values |  |
| :---: | :---: |
| *January | 0 |
| *February | 3 |
| March | 3 |
| April | 6 |
| May | 1 |
| June | 4 |
| July | 6 |
| August | 2 |
| September | 5 |
| October | 0 |
| November | 3 |
| December | 5 |


| Remainder <br> Values |  |
| :---: | :---: |
| 0 | Sunday |
| 1 | Monday |
| 2 | Tuesday |
| 3 | Wednesday |
| 4 | Thursday |
| 5 | Friday |
| 6 | Saturday |

*If the year is a leap year, subtract 1 from Jan and Feb values.

## Year Values

Take the last two digits of the year and divide it by four. Truncate the answer (round down). Add this quotient to the original last two digits. This is your year value.

Find the century and year values of the following years.

| 1. 2016 | 2.1910 | 3.2059 |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |

## Shortcut to Finding the Year Values

Our calendar is on a repeating cycle of 28 years. 2001 has the same calendar as 2029, 1950 has the same calendar as 1978. Calendars repeat every $\mathbf{2 8}, \mathbf{5 6}$, and 84 years!
Subtracting multiples of 28 can give us an easier year value to calculate.
4. Let's do the last problem again. The year 2059.

What day of the week did the following dates take place? Try to do it in your head as much as possible, then you can right down the correct way of doing the calculations.

| 5. March 13, 2020 | $6 . \quad$ September 11, 2001 | $7 . \quad$ June 19, 1984 |
| :---: | :---: | :---: | :---: | :---: |

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## Practice

For the following dates, calculate the day of the week it occurred. Show the work for your calculations.

1. September 9, 2020
2. July 13, 2086
3. April 21, 1703
4. March 23, 2026
5. February 6,2007
6. January 19,1899
7. June 12, 1957
8. March 30, 2061
9. July 22, 2005
10. February 24,1666
11. March 29, 2017
12. December 1, 1701

For the following dates, calculate the day of the week it occurred, but do it all in your head. No work!
16. February 14,2028 (leap year!)
18. October 3, 2025
20. February 10,1961
22. September 9, 2004

