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Week Calendar

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Abstract:

A new calendar called the Week Calendar is presented, which is determined by weeks. It is more orderly, concise, and aesthetically pleasing compared to conventional calendars.

Keywords: calendar,solar calendar, week calendar

	January 2026						
	4	5	6	7	1	2	3
1	01	02	03	04	05	06	07
2	08	09	10	11	12	13	14
3	15	16	17	18	19	20	21
4	22	23	24	25	26	27	28
5	29	30	31				

February 2026

	7	1	2	3	4	5	6
1	01	02	03	04	05	06	07
2	08	09	10	11	12	13	14
3	15	16	17	18	19	20	21
4	22	23	24	25	26	27	28

The above shows the week calendars for January and February 2026. The week calendar for a given solar (Gregorian) month is structured as follows:

1.Solar Date Arrangement: Dates start from 1, with a new line every 7 days. If the last row has fewer than 7 days, blanks are left or omitted.

2. Weekday Labels: The weekday sequence starts with the day of the week corresponding to the 1st of the month, then increments by one day (modulo 7) until the seventh day. The weekdays are dynamically labeled based on the starting day of the month, adapting to different months. Weekdays and dates are aligned both vertically and horizontally for easy reference.

3. Month and Year Display: The month and year are clearly marked at the top to avoid confusion.

4. Example: The week calendars for January and February 2026 are shown above—neat, regular, with each row fixed at 7 days for quick date lookup.

For instance, in the January 2026 week calendar, the 27th can be quickly located, and it's immediately clear that it falls on a Tuesday. In contrast, finding the weekday for the 27th in a traditional solar calendar is not as fast or straightforward.

Furthermore, this date arrangement (week calendar) is more organized, concise, and aesthetically pleasing than the conventional solar calendar. This is already a significant improvement, but further refinements can be made.

The weekday sequence follows modulo-7 addition, meaning it always aligns with the pattern

1-2-3-4-5-6-7. For example, the weekday sequence for January 2026 is 4-5-6-7-1-2-3 (where 4 represents Thursday, 5 Friday, etc.).

The solar calendar format is year-month-day, omitting the weekday. With the week calendar, dates can be expressed as year-month-week-weekday, effectively adding the weekday. For example: In the January 2026 week calendar, January 26th can be represented as 2026-01-4-1, meaning 2026, January, Week 4, Weekday 1 (Monday). This is because January 26th appears in the 4th row, 5th column (Week 4, Weekday 1). Conversely, 2026-01-2-6 (read as "2026 January two-six") corresponds to the solar date in the 2nd row, 6th column (Week 2, Saturday), which is January 10th, 2026.

In general, using this week-weekday format for dates, the week calendar for January 2026 can be represented as follows:

January 2026

	4	5	6	7	1	2	3
1	1-4	1-5	1-6	1-7	1-1	1-2	1-3
2	2-4	2-5	2-6	2-7	2-1	2-2	2-3
3	3-4	3-5	3-6	3-7	3-1	3-2	3-3
4	4-4	4-5	4-6	4-7	4-1	4-2	4-3
5	5-4	5-5	5-6				

Expressing dates in the format of Year-Month-Week-Day, where "Day" represents both the calendar date and the day of the week, serves a dual purpose. Below is a detailed explanation of this new date notation, its advantages, and its significance, with reference to the table above!

Calculation of Week Numbers

Each month consists of 4 to 5 weeks. For January 2026 (using the Gregorian calendar), the first seven days, from the 1st to the 7th, constitute Week 1. This corresponds to the first row labeled "1" in the table: 1-4, 1-5, 1-6, 1-7, 1-1, 1-2, 1-3. The next seven days, from the 8th to the 14th, are Week 2, represented by the second row labeled "2": 2-4, 2-5, 2-6, 2-7, 2-1, 2-2,

2-3. Days 15 to 21 form Week 3, shown in the third row labeled "3": 3-4, 3-5, 3-6, 3-7, 3-1, 3-2, 3-3. Days 22 to 28 are Week 4, listed in the fourth row labeled "4": 4-4, 4-5, 4-6, 4-7, 4-1, 4-2, 4-3. Finally, the remaining days, 29 to 31, make up Week 5, appearing in the fifth row labeled "5": 5-4, 5-5, 5-6.

Thus, January 2026 has 5 weeks, while February 2026 has 4 weeks.

Notably, the numbering of weeks (Week 1, Week 2, etc.) here differs from the conventional "natural week" system and is independent of the day of the week.

Cyclic Arrangement of Dates (and Days of the Week)

The sequence of the second numbers in each week's dates forms a cyclic arrangement. For example, the dates of Week 1 in January 2026—1-4, 1-5, 1-6, 1-7, 1-1, 1-2, 1-3—correspond to the cyclic arrangement 4567123.

It is easy to see that if the first week's dates follow the cyclic arrangement 4567123, then Weeks 2, 3, and 4 will also follow the same cyclic arrangement. If there is a fifth week, its dates will follow the first part of this arrangement (e.g., 456 for Week 5 in January 2026).

In this cyclic arrangement, a larger number always follows a smaller one unless separated by 7. For instance, in 4567123, the numbers larger than 4 (567) come after 4, while the smaller numbers (123) would normally precede 4 but instead follow it due to the 7 acting as a separator.

This means that the date (and day of the week) sequences for Weeks 1, 2, 3, and 4 are all cyclic permutations of 1234567, maintaining perfect consistency. If there is a fifth week, its sequence is simply the initial segment of this cycle. Each week's dates increment by +1 (mod 7), ensuring absolute regularity without any irregularities, eliminating the usual chaos of traditional calendar layouts. It can perfectly represent the dates for this week.

In the notation "2-6," the number 6 serves a dual purpose: it indicates both that the day is Saturday and that it is the 6th day of the week—killing two birds with one stone!

In the cyclic sequence 4567123, the 4th day is the first day of the week, and the 6th day is the third day of the week, which is immediately clear! It’s also evident that "2-6" corresponds to the 10th day in the solar calendar.

When representing dates in the format of year-month-week-day of the week, if the cyclic sequence of days is not 1234567, just remember that 7 is followed by 1—everything else follows an ascending order. This makes it highly regular and extremely simple!

Expressing dates in the format of year-month-week-day of the week may seem disordered at first glance. For example, the 5th might appear before the 2nd. In such cases, the cyclic sequence of dates must include a segment like 56712. By comparing this segment with the cyclic sequence, it becomes clear that the 5th must precede the 2nd, making the arrangement perfectly logical.

Using the year-month-week-day format might seem to add complexity by introducing the "week" element, but this method actually simplifies things by removing the need to track the day of the week separately. Here, the week is numbered 1-5 (or as needed), while the days of the week are numbered 1-7 (Monday to Sunday). Thus, this format is both simpler and clearer.

The week calendar exhibits a perfect mathematical regularity. Once you know the day of the week for the 1st of a given month, you can instantly generate the week calendar for that month—let’s call it the "weeknumber-weekday matrix."

Applying this weeknumber-weekday matrix to wall calendars, smartphones, and daily life would be incredibly convenient. It can even be memorized easily because it’s just a cyclic permutation of 1-2-3-4-5-6-7, following a strong logical pattern. For example, you only need to remember a sequence like 4-5-6-7-1-2-3 (write it down if needed, then count or calculate to determine dates), or simply remember which day of the week the 1st of the month falls on—that alone defines the entire weeknumber-weekday matrix for the month.

Take the weeknumber-weekday matrix for January 2026 as an example. By referencing this matrix on a smartphone or wall calendar, you can instantly locate and calculate that "2-5" corresponds to January 9th, Friday. Conversely, given the Gregorian date January 25th, you can immediately determine its position: first, it falls in Week 4 (since Week 4 covers dates 22-28), and then, since the 25th is the fourth natural column, you instantly know it’s "4-7"—a Sunday!

Since most people today always have their smartphones with them, adopting the weeknumber-weekday matrix on mobile devices would offer unparalleled advantages. If you memorize the weeknumber-weekday matrix, you can jot it down on a note or elsewhere—for this example, simply writing or remembering "4-5-6-7-1-2-3" allows you to quickly determine that "3- 5" corresponds to the 14th + 2 = 16th, Friday, or that the 25th is "4- 7." In contrast, locating the 25th on a traditional Gregorian calendar and determining its day of the week is neither as easy nor as fast!

For the x-y day, there's a quick estimation method: Given the 3-5 day, you can immediately know that it falls between the 15th and 21st of the solar calendar. Given the 26th of the solar calendar, you can immediately tell that it's the 4-x day and in the 5th natural column. x -3 denotes Wednesday , x -5 denotes Friday ,etc..This is also the abbreviation of Wednesday and Friday. This meets many practical needs!

When broadcasting the date,radio and TV stations no longer announce the day of the week , simply stating "February 3–5, 2026" saves time and speech effort daily, and this method is applicable to any language!

Once you know today is weekday X, you can immediately determine which date next week's weekday Y falls on (whether it's a natural week or a week in the week calendar). If it's a week in the week calendar and the current week is week X, then next week's weekday Y will be the day corresponding to X+1-Y in the weeknumber-weekday matrix. If the week spans across months, the same logic makes it easy to locate the date! Similarly, last week's weekday Y can also be easily determined. For natural weeks, if next week aligns with the week calendar's defined week, the date is straightforward to locate. If not, the same logic applies!

Once you've mentioned dates like the 3–5 day or 3–6 day , saying "the 16 or 17 day" becomes redundant. In other words, with the week calendar date given, the Gregorian calendar date can be entirely discarded.

Turning this weeknumber-weekday matrix into a mini matrix card would be extremely convenient. There are seven possible scenarios for which weekday the 1st of the month falls on (1–7), so a "Gold Card" for a 31-day month would suffice—seven cards are enough. A "Silver Card" for a 30-day month would have its 30th day marked in gray, indicating it may or may not be relevant. For a 30-day month, it's useful; for a 29-day month, it's irrelevant; and for a 28-day month, the entire fifth week is irrelevant. Since 28-day and 29-day months occur only once a year, this is easy to handle. Thus, seven Silver Cards are also sufficient! Of course, using erasable materials to mark them would be even better. Alternatively, the Silver Card could include a note: "For 29-day months, the 30th is irrelevant; for 28-day months, the 29th and 30th are both irrelevant." With these 14 calendar cards, they could be used for ten thousand years!

The week calendar makes some floating holidays more precise and easier to use than traditional methods. For example, Mother's Day would be "Year X- May-2-7," and Father's Day would be "Year X- June-3-7."

According to the exceptional uniformity, symmetry, and regularity of this weeknumber-weekday matrix, the Gregorian dates or $x - y$ dates within it can be entirely removed, creating a numberless calendar without compromising its functionality! This system would represent humanity's greatest simplification in timekeeping since the invention of Arabic numerals!