C A L E N D A R   F O R M U L A E

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January = 13-th month of the PREVIOUS year!
February = 14-th month of the PREVIOUS year!

D	– Date (1-31)	Example: 20.01.1996 = 20.13.1995
M	– Month (3-14)	$D = 20$, $M = 13$, $Y1 = 19$, $Y2 = 95$.
Y_2	– Year in the century	$DW \equiv 1 + 20 + 2 \cdot 13 + 8 + 95 + 23 + 5 \cdot 19 + 4 \equiv$
Y_1	– Full centuries $\left(\left[\frac{\text{year}}{100}\right]\right)$	$1 + 6 + 2 \cdot 6 + 1 + 4 + 2 + 5 \cdot 5 + 4 \equiv 6$ (Saturday)
DW	– Day of the week (0-6)	0 – Sunday

	1 – Monday
	2 – Tuesday
($[a]$ is the whole part of a)	3 – Wednesday
	4 – Thursday
($c \equiv d \pmod 7$ means c and d have	5 – Friday
equal remainders divided by 7)	6 – Saturday

OLD STYLE:
(Last date October 4, 1582) (In Bulgaria: last date March 31, 1916)

$$DW \equiv 6 + D + 2 \cdot M + \left[\frac{3 \cdot (M+1)}{5}\right] + Y_2 + \left[\frac{Y_2}{4}\right] + 6 \cdot Y_1 \pmod 7$$

NEW STYLE:
(First date October 15, 1582) (In Bulgaria: first date April 14,1916)

$$DW \equiv 1 + D + 2 \cdot M + \left[\frac{3 \cdot (M+1)}{5}\right] + Y_2 + \left[\frac{Y_2}{4}\right] + 5 \cdot Y_1 + \left[\frac{Y_1}{4}\right] \pmod 7$$

Note: If the calculations are made by hand, it is easier to take for every term in the sum its remainder when divided by 7 (cf. the Example above).

EASY TO REMEMBER BUT RESTRICTED CALENDAR FORMULA
(Validity: March 1, 1900 – February 28, 2100)

Month correction MC (easy to remember):
   $144 = 12^2$ ($4 = 2^2$), $025 = 5^2$, $036 = 6^2$, $146 = 12^2 + 2$, $(25 = 5^2)$.

	J	F	M	A	M	J	J	A	S	O	N	D	Jprev	Fprev
usual	1	4												
any year			4	0	2	5	0	3	6	1	4	6	2	5
leap	0	3												

(If you do not use the previous year for January and February, take into account if the year is usual or leap.)

Year correction YC (calculate in mind):
   $YY = Y - \{1884, 1912, 1940, 1968, 1996, 2024, 2052, 2080\}$, $Y \geq 1900$ is the year.

$$YC \equiv YY + \left[\frac{YY}{4}\right] \pmod 7.$$

Day of the week DW (calculate in mind):
   $DW \equiv D + MC + YC \pmod 7$,   where D is the date in the month.