

```

dayofweek (day# ;month# ;year#):=
  t# := [ 0 3 2 5 0 3 5 1 4 6 2 4 ]
  y# := { year# - 1 if month# < 3
         year#      otherwise
  }
  w# := mod ( y# + ⌊ $\frac{y\#}{4}$ ⌋ - ⌊ $\frac{y\#}{100}$ ⌋ + ⌊ $\frac{y\#}{400}$ ⌋ + t#month# + day# ; 7 )
  w# := { w# + 7 if w# < 0
         w#      otherwise
  }
  { "Sunday"    if w# = 0
    "Monday"    if w# = 1
    "Tuesday"   if w# = 2
    "Wednesday" if w# = 3
    "Thursday"  if w# = 4
    "Friday"    if w# = 5
    "Saturday"  otherwise
  }

```

```

calendar (month# ;year#):=
  t# := [ 0 3 2 5 0 3 5 1 4 6 2 4 ]
  y# := { year# - 1 if month# < 3
         year#      otherwise
  }
  w# := mod ( y# + ⌊ $\frac{y\#}{4}$ ⌋ - ⌊ $\frac{y\#}{100}$ ⌋ + ⌊ $\frac{y\#}{400}$ ⌋ + t#month# + 1 ; 7 )
  w# := { w# + 7 if w# ≤ 0
         w#      otherwise
  }
  dayz# := [ 31 0 31 30 31 30 31 31 30 31 30 31 ]
  { dayz#2 := 29 if mod (year# ; 400) = 0
    dayz#2 := 28 if mod (year# ; 100) = 0
    dayz#2 := 29 if mod (year# ; 4) = 0
    dayz#2 := 28 otherwise
  }
  table# := matrix (1 ; 7)
  for i# ∈ [ 1 .. (dayz#month# + w# - 1) ]
    table#i# := { i# - w# + 1 if w# ≤ i# < dayz#month# + w#
                 ""         otherwise
  }
  if i# < length (table#)
    for j# ∈ [ (dayz#month# + w#) .. length (table#) ]
      table#j# := ""
  else
    ""
  table#

```

dayofweek (29 ; 10 ; 1923) = "Monday"

dayofweek (29 ; 7 ; 2021) = "Thursday"

```

calendar (7 ; 2021) =
  [ "" "" "" 1 2 3 4
    5 6 7 8 9 10 11
    12 13 14 15 16 17 18
    19 20 21 22 23 24 25
    26 27 28 29 30 31 "" ]

```

Mon	Tue	Wed	Thu	Fri	Sat	Sun
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	
2021 - Jul						