# Attic Calendar  (Contact: athenian.calendar@gmail.com)

In this site you can find a reconstruction of the ancient Attic/ Athenian calendar introduced by the astronomer Meton in 432 BC. The year begins with the new moon after the summer solstice with the month Hakatombaion, with the next months: Metageitnion, Boedromion, Pyanepsion, Maimakterion, Poseideon, Poseideon II (intercalated month in the case of the long years), Gamelion, Anthesterion, Elaphebolion, Mounichion, Thargelion and Skirophorion.

The most important element is the discovery of the 19 years cycle after which the solar and the lunar date are aligned again. Meton cycle consists of 6940 days distributed as follows: 8 normal years of 354 days (Hakatombaion:30, Metageitnion: 29, Boedromion:30, Pyanepsion:29, Maimakterion:30, Poseideon:29, Gamelion:30, Anthesterion:29, Elaphebolion:30, Mounichion:29, Thargelion:30 and Skirophorion:29), 4 normal years of 355 days (by extending one 29-days month to 30 days, let select: Metageitnion) and 7 long years of 384 days (through the intercalation of one more 30-month, named Poseideon II, after Poseideon). The order of a year is found as year modulo 19, with modulo 0 setting as 19. Thus every year is characterized by its order 1 to 19. The long years are the years: 3,6,8,11,14,17,19. We consider as normal years: 2,4,5,9,10,13,16,18 and as extended years: 1,7,12,15.

We considered as the year 1 of the 1$^{st}$ Meton cycle the one beginning with the actual beginning of Meton-cycles: 432 BC. We extended the calendar 20 cycles to the past in order to have the opportunity to use the Attic calendar for the definition of some certain dates recorded in the ancient texts (as the eclipse foretold by Thales, which has been identified with 28 May, 585 BC in proleptic Julian Calendar). The dates given before the summer solstice of 432 BC consist the proleptic Attic Calendar.

We have used an algorithm for the estimation of the first day of each attic year (first new moon after the summer solstice), based on the 'Molad Tohu' algorithm for the determination of the first day of the Hebrew years. It is examined against the really occurred new moon and the estimation is indeed successful, failing in at most 1 plus/minus day. We also note that the corrections of Callippus (every 76 years) and Hipparchus (every 304 years) to the Meton cycle have also been taken into account.

For now, you can find in our site, the current date transformed to Attic date. Besides full year calendars are available for any year between 812 B.C. and 25000 A.D.

Another useful tool is a date converter of any Gregorian date to Attic date for the above period. The input date is any proleptic Julian date (for dates before 1/1/45 B.C., year when Julian Caesar introduced the new calendar), real Julian date (for dates after 1/1/45 B.C.) or Gregorian date (for dates after 15/10/1582 A.D., when the current used calendar was introduced by Pope Gregory XIII).

The Attic dates are completed with an ancient year designation in the form of a couple, based on the Olympic Games chronology (beginning in summer of 776 BC defined as Ol.1.1). The first number after Ol. indicates the number of the Olympiad, and the second number indicates the number of the year (1 to 4), since the Olympian Games were held, as today, every 4 years.