

History of the Calendar

The premise of the earliest Roman calendar is the meshing of a thirty-day lunar cycle with an eight-day market week (the interval required for the processing of goat's cheese). Four months of thirty days each was the soonest these two units can be integrated. 120 days also roughly corresponds with the gestation period of a pig. The first month of the Roman year was March, followed by April, May, and June. March is named after the god of war, Mars. April is derived from the word *aper*, a boar. May is probably related to an old word for a sow, and June is named after the queen of the gods, Juno. There is evidence to suggest that March and June were originally named Caprotinus and Fabarius, words also related to the raising of pigs.

According to tradition, around 738 B.C. Romulus, the legendary founder of Rome, added six months to the calendar. He unimaginatively named them the fifth through tenth months. An additional day was added to March, May, July, and October to maintain the eight-day market week – 304 days. Numa Pompilius, the second king of Rome, added January (29 days) and February (28 days), and he took away one day each from the thirty-day months – 355 days. This calendar does not maintain the eight-day market week, but it does roughly coincide with twelve cycles of the moon, a lunar year. Initially intercalary days were added at the end of February to keep the calendar in line with the eight-day market week; later an intercalary month (*Mercedonius*) was added in alternate years to bring the lunar year into accord with the solar year and the changes in the seasons. January is named after the Roman god, Janus, yet it did not become the first month of the official year until 153 B.C. February is named after a religious festival of cleansing, Februa.

Due to priestly and political abuses, the calendar was out of synch with the sun's course by almost two months when Julius Caesar returned to Rome from Egypt in 46 B.C. With the advice of the Alexandrian Greek astronomer Sosigenes, Julius Caesar extended 46 B.C. to 445 days to bring it in line with astronomical observations. Then on 1 January 45 B.C., he introduced a solar calendar of 365.25 days. He added two days each to January and December, and one day each to February, April, June, August, September, and November. February had thirty days every fourth year. The fifth month was renamed in honor of the assassinated Julius Caesar in 44 B.C. The sixth month was renamed in honor of Augustus, the first emperor of Rome, in 8 B.C.

One day was taken from February and added to August so that it would not be shorter than July. This was the last revision ever made to the lengths of the months.

The Julian calendar is essentially the same calendar we use today. However, a solar year is actually 365.242199 days, or 11 minutes 14 seconds slower than the Julian calendar. Thus the Julian calendar adds an extra day every 128 years. In 1582 Pope Gregory XIII, after centuries of scientific wrangling by numerous scholars, instituted a relatively simple solution by papal bull. The Gregorian calendar does not add a day to February in centesimal years which are not divisible by 400. In order to bring the calendar back into alignment with the solar year, ten days were taken out of the calendar; people went to sleep on 4 October 1582 and woke up the next morning on 15 October 1582. Many non-Catholic countries were not eager to follow the Pope. Great Britain and her colonies did not switch until 1752, and eleven days were dropped because the Gregorian calendar did not have a leap year in 1700. The Japanese adopted the Gregorian calendar in 1873, while Russia waited until 1918, after the Bolshevik Revolution.

| Mensis | First Calendar | Romulus' Reforms 738 B.C. | Numa's Reforms c. 700 B.C. | Julian Reforms 45 B.C. | Augustan Reforms 8 B.C. |
|---------------------|----------------|------------------------------|-------------------------------|---------------------------|----------------------------|
| Martius | 30 | 31 | 31 | 31 | 31 |
| Aprilis | 30 | 30 | 29 | 30 | 30 |
| Maius | 30 | 31 | 31 | 31 | 31 |
| Iunius | 30 | 30 | 29 | 30 | 30 |
| Quintilis / Iulius | | 31 | 31 | 31 | 31 |
| Sextilis / Augustus | | 30 | 29 | 30 | 31 |
| September | | 30 | 29 | 30 | 30 |
| October | | 31 | 31 | 31 | 31 |
| November | | 30 | 29 | 30 | 30 |
| December | | 30 | 29 | 31 | 31 |
| Ianuarius | | | 29 | 31 | 31 |
| Februarius | | | 28 | 29* | 28* |

*One day added every fourth year.

The Roman month was divided by three reference days. The Kalends, the first day of every month; the Nones, the 7th of March, May, July, and October and the 5th of all other months; and the Ides, the 15th of March, May, July, and October and the 13th of all other months. All other days were referenced by how many days they fell before one of these three markers. For example, January 3rd was the third day before the Nones; it is the third day because the Romans always counted inclusively (*ante diem tertium nonas Ianuarias*). The original significance of these days seems to be that the Kalends sometimes coincided with the new moon, the Nones sometimes coincided with the first quarter moon, and the Ides sometimes coincided with the full moon. The days of the eight-day market week were simply lettered from A to H. Constantine officially adopted the seven-day planetary week in the Roman Empire in 321 A.D. He also established Sunday as the first day of the week because according to the Bible, Jesus rose from the dead on this day. Nevertheless, the seven-day planetary week was already gaining popularity among the Romans because of its astrological significance; each day was “controlled” by one of the seven ancient “planets.”

The seven ancient “planets,” which included the sun and moon, were first identified by the Babylonians, and their relative distances from the earth, with the earth as a fixed position in a geocentric universe, were properly observed as well. Thus, using the Roman names, the planets from farthest to closest were Saturn, Jupiter, Mars, Sol (the sun), Venus, Mercury, and Luna (the moon). The order of the seven-day planetary week is a product of dividing a day into 24 hours and assigning each hour to a planet. It is not clear why the day was divided into 24 hours, but 24 is divisible by six, the basis of the Babylonian numeric system, and the 360 degrees of the Babylonian circle is also divisible by 24. Before Constantine, the seven-day planetary week began on Saturday, which was a feature shared by the Hebrew-Sabbath week, in accordance with the creation story of the Old Testament. By assigning each hour of the day to a planet beginning on Saturday with the first hour assigned to Saturn and each subsequent hour assigned to the planets based on their distance from earth (1 Saturn, 2 Jupiter, 3 Mars, 4 Sol, 5 Venus, 6 Mercury, 7 Luna, 8 Saturn, 9 Jupiter, 10 Mars, etc.), the first hour of the second day falls to Sol, the third day to Luna, the fourth day to Mars, the fifth day to Mercury, the sixth day to Jupiter, and the seventh day to Venus. On the eighth day the system comes full circle, and Saturn

“controls” the first hour again. The Romans used the Latin word for day, *dies*, with the genitive form of the planetary name to denote the days of the week:

| | |
|----------------------|-----------------|
| <i>dies Saturni</i> | day of Saturn |
| <i>dies Solis</i> | day of the sun |
| <i>dies Lunae</i> | day of the moon |
| <i>dies Martis</i> | day of Mars |
| <i>dies Mercurii</i> | day of Mercury |
| <i>dies Iovis</i> | day of Jupiter |
| <i>dies Veneris</i> | day of Venus |

In Britain, the seven-day planetary week was adopted in the fifth century during the Anglo-Saxon conquest. These Germanic peoples were eager to take on certain Roman customs, but they retained their own pagan gods. Thus the day of Mars was renamed after their own god of war, Tiu, the day of Mercury became Woden’s day, the day of Jupiter became Thor’s day, and the day of Venus became Freia’s day. The day of Saturn was retained, and the day of the sun and the day of the moon were simply translated.

Calendar Vocabulary

annus, anni, m. year

dies, diei, m. day

mensis, mensis, m. month

The months are masculine substantive adjectives understanding *mensis*.

Martius March

Aprilis April

Maius May

Iunius June

Quintilis 5th month

Iulius July; replaced Quintilis

Sextilis 6th month

Augustus August; replaced Sextilis

September 7th month

October 8th month

November 9th month

December 10th month

Ianuarius January

Februarius February

The seven ancient “planets”

Saturnus, Saturni, m. Saturn

Iuppiter, Iovis, m. Jupiter

Mars, Martis, m. Mars

Sol, Solis, m. the sun

Venus, Veneris, f. Venus

Mercurius, Mercurii, m. Mercury

Luna, Lunae, f. the moon

Augustus

| Saturni Dies | Solis Dies | Lunae Dies | Matis Dies | Mercurii Dies | Iovis Dies | Veneris Dies |
|--------------|-------------------|---------------------|---------------|---------------------|--------------|--------------|
| | | | | I Kalends | II | III |
| IV | V Nones | VI | VII | VIII | IX | X |
| XI | XII | XIII Ides | XIV | XV | XVI | XVII |
| XVIII | XIX | XX | XXI | XXII | XXIII | XXIV |
| XXV | XXVI | XXVII | XXVIII | XIX | XXX | XXXI |

Mensis: _____

| _____ Dies |
|------------|------------|------------|------------|------------|------------|------------|
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Calendar Worksheet

I. Match the month with its Roman origin.

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|---------------|---------------------------------------|
| 1. Ianuarius | a. originally the first month |
| 2. Februarius | b. <i>Sextilis</i> , the sixth month |
| 3. Martius | c. the 9 th month |
| 4. Aprilis | d. the god of beginnings |
| 5. Maius | e. <i>Quintilis</i> , the fifth month |
| 6. Iunius | f. a boar |
| 7. Iulius | g. the 7 th month |
| 8. Augustus | h. cleansing festival |
| 9. September | i. the 10 th month |
| 10. October | j. queen of the gods |
| 11. November | k. a sow |
| 12. December | l. the 8 th month |

II. Name the days of the week in Latin and match the Germanic god/goddess with the Roman god/goddess he/she is associated with. Start with the first day of the week before Constantine.

- | | |
|---------------|------------------------|
| 1. _____ dies | |
| 2. _____ dies | |
| 3. _____ dies | |
| 4. _____ dies | Germanic god _____ |
| 5. _____ dies | Germanic god _____ |
| 6. _____ dies | Germanic god _____ |
| 7. _____ dies | Germanic goddess _____ |

Word Bank

| | | | | | | |
|----------|---------|------|----------|----------|-------|---------|
| Iuppiter | Veneris | Thor | Valhalla | Martis | Freia | Lunae |
| Woden | Solis | Tiu | Dominus | Mercurii | Iovis | Saturni |

The Roman Calendar Rubric

| 4 | 3 | 2 | 1 | 0 |
|--|---|---|---|--|
| Student names in Latin and identifies the origins of all the months | Student names in Latin and identifies the origins of at least 10 months | Student names in Latin and identifies the origins of at least 8 months | Student names in Latin and identifies the origins of at least 6 months | Student names in Latin and identifies the origins of fewer than 5 months |
| Student identifies the Kalends, Nones, and Ides of all the months | Student identifies the Kalends, Nones, and Ides of at least 10 months | Student identifies the Kalends, Nones, and Ides of at least 8 months | Student identifies the Kalends, Nones, and Ides of at least 6 months | Student identifies the Kalends, Nones, and Ides of fewer than 5 months |
| Student names the days of the week in Latin and identifies the Germanic gods from whom the English names are derived | Student names 6 of the days of the week in Latin and identifies the Germanic gods from whom the English names are derived | Student names 5 of the days of the week in Latin and identifies the Germanic gods from whom the English names are derived | Student names 4 of the days of the week in Latin and identifies the Germanic gods from whom the English names are derived | Student names fewer than 4 of the days of the week in Latin and identifies the Germanic gods from whom the English names are derived |