

13 (number)

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"Thirteen" redirects here. For other uses of "13" and "Thirteen", see 13 (disambiguation)

13 (**thirteen**) is the natural number after 12 and before 14. It is the smallest integer with eight letters in its spelled out name in English.

13	10	3
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← 10 11 12 **13** 14 15 16 17 18 19 →

List of numbers — Integers

0 10 20 30 40 50 60 70 80 90 →

Cardinal	13 thirteen
Ordinal	13th thirteenth
Numeral system	tredecimal
Factorization	Prime
Divisors	1, 13
Roman numeral	XIII
Roman numeral (Unicode)	XIII, xiii
Binary	1101
Octal	15
Duodecimal	11
Hexadecimal	D

In mathematics

Thirteen is the 6th smallest prime number; the next is seventeen. 13 is the second Wilson prime. 13 is the fifth Mersenne prime exponent, yielding 8191.

13 is the second star number and the seventh Fibonacci number. As it is an odd-indexed Fibonacci number, it is a Markov number, appearing in solutions to the "Markov Diophantine equation": (1, 5, 13), (1, 13, 34), (5, 13, 194), ...

13 is also the second happy prime, following 7, and the rethorical 1. It is also a lucky number

There are 13 Archimedean solids.

13 goes into 999,999 exactly 76,923 times, so vulgar fractions with 13 in the denominator have six digit repeating sequences in their decimal expansions. It is thus the smallest *half period prime* (sequence A097443 (<http://www.research.att.com/~njas/sequences/A097443>) in OEIS)

13 is the largest number whose factorial is less than 10^{10} . This means 13 is often the largest factorial a pocket calculator can represent *without scientific notation*. (This is not really a special pure mathematical property, because it requires 10 to be the "main base number" self-evidently.)

At 13, the Mertens function sets a new low of -3, subseded later at 31 with a value of -4.

13 is the only positive integer that is the fourth root of the sum of the squares of two successive positive integers (119 and 120).

The 13th root is the most famous integer root calculation record, because 13 is the first prime number over 10 such that the last digit of a 13th integer power is the same as the last digit of its 13th root.

In base 10, the smallest prime with a composite sum of digits is 13.

13 is a repdigit in base 3 (111).

Let ${}_p\log_g x$ denote the discrete logarithm according to the prime number p , i.e., the number l modulo $p - 1$ such that

$$g^x \equiv l \pmod{p}.$$

Then 13 is the only prime number p such that for any two primitive roots g and h ,

$${}_p\log_g h \equiv {}_p\log_h g \pmod{p - 1}.$$

There exists an a periodic set of thirteen Wang tiles.

The Primorial+1 : $13\#+1=2*3*5*7*11*13+1$ is the first number of the form $n\#+1$ which is composite.

Also, the first whole number to have the sum of its digits equal 13 and also be divisible by 13 is 247 ($2+4+7=13$)($13*19=247$) There are 24 hours in a day and 7 days in a week. The next number to have these attributes is 364 ($3+6+4=13$)($13*28$) This is one day less than a year. 13 flipped around is 31, which accounts for the number of days in most months.

In science

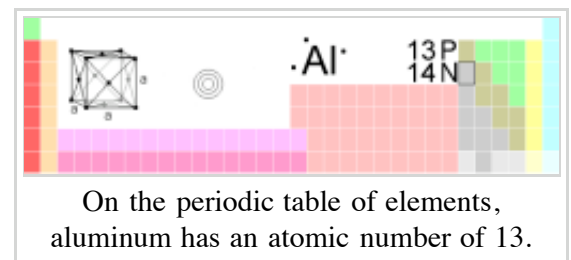
- The atomic number of aluminium

In religion

Christianity

- The number of participants at the Last Supper.
- Thirteen was once associated with the Epiphany by Christians, the child Jesus having received the Magi on his thirteenth day of life.

Judaism



- In Judaism, 13 signifies the age at which a boy matures and becomes a Bar Mitzvah (Age of 12 for Girls, or Bat Mitzvah).
- The number of principles of Jewish faith according to Maimonides
- According to the Torah, God has 13 Attributes of Mercy
- In Mesoamerican Divination, 13 is the number of important cycles of fortune/misfortune.

A Significant Number

For various reasons 13 is considered a number carrying a special significance in many cultures.

Unlucky 13

Thirteen is regarded as an unlucky number in many cultures. Fear of the number 13 is termed triskaidekaphobia. The thirteenth of a month is likewise ominous, particularly when it falls on a Friday in some English-speaking cultures, Sweden, Russia and Germany (see Friday the 13th) or a Tuesday in the Greek and Spanish-speaking world.

Suggested explanations

Thirteen may be considered a "bad" number simply because when a group of 13 objects or people is divided into two, three, four or six equal groups, there is always one leftover, or "unlucky", object or person.

It was suggested by Charles A. Platt writing in 1925 that the reason 13 is considered unlucky is that a person can count from 1-12 with their 8 fingers, two thumbs and 2 feet, but not beyond that, so the number 13 is unknown, hence frightening, hence unlucky.^[1] This idea discounts the use of toes or other body parts in counting.

Some Christian traditions have it that at the Last Supper, Judas Iscariot, the disciple who betrayed Jesus, was the 13th to sit at the table.

According to another interpretation, the number 13 is unlucky because it is the number of full moons in a contemporary year, but two full moons in a single calendar month (mistakenly referred to as a blue moon in a magazine article of the 1940s) only happens about every 5 years.

Early nursery rhymes stated there were thirteen months in a year because of the natural moon cycle that was used to count the lunar year. In England, a calendar of thirteen months of 28 days each, plus one extra day, known as "a year and a day" was still in use up to Tudor times. The lunar year was the easiest to count for cultures before scientific methods existed to observe the movement of the earth around the sun, so it was associated with worship of the pagan Great Goddess for thousands of years, which may be another reason for 13 becoming a taboo number. Taboo often is misunderstood when only half of the totem and taboo relationship is recognized. Among religions having totem and taboo characteristics, that which is taboo on a regular basis may become quite sacred on special occasions.

In Tarot decks, the 13th card of the Major Arcana is Death. While Death is rarely interpreted literally, it is



The stall numbers at the Santa Anita Park show that 13 is considered an unlucky number in horse racing.

possible that this furthered the perception of 13 as an unlucky number.

Another hypothesis about the origin of Friday the 13th as an unlucky day is attributed to this being the day that the Knights Templar were slaughtered in a collaboration between King Philip IV of France and Pope Clement V finishing with the burning at the stake of Jacques De Molay.

The legion with which Julius Caesar crossed the Rubicon was the Legio XIII Gemina or the 13th legion.

13 is the 6th prime number. 6 is sometimes considered an unlucky number due to its association with 666.

Examples

In Scotland, there is no gate 13 in any airport, instead there is a gate 12B.

Some airplanes skip a row 13, going straight from 12 to 14.^[2]

Some tall buildings have resorted to skipping the "thirteenth floor", either by numbering it "14"^[3] or as "12a".

Some streets do not contain a house number 13.

In many cultures, getting married on any day of the week that falls under number 13 is highly discouraged.

There is a superstition that should thirteen sit at a table to dine, one will die in the next year. This prompted the formation of The Thirteen Club to debunk it.

The Code of Hammurabi, a collection of laws created ca. 1760 BC, does not contain a thirteenth law.

On the 13th day of the Persian new year (Norouz), people consider staying at home unlucky, and go outside for a picnic in order to ward off the bad luck.

Most race car drivers consider 13 a very unlucky number, as a car carrying that number has never won the Indianapolis 500 or a NASCAR Nextel Cup race, and almost all Formula 1 teams are no longer given the number 13 when car numbers are given out to teams on basis of points. Usually the team finishing seventh in the previous year's championship will take numbers 14 and 15, instead of 13 and 14. Only once in recent years (1991, Ricky Johnson) has an AMA Motocross rider chosen #13 instead of #14. Some NASCAR tracks refuse to have a pit stall #13.

At the Universal Studios sound stages in California, there is no sound stage numbered 13.

Microsoft plans to skip Office 13 for being "an unlucky number," going directly from Office 12 to Office 14. [1] (http://apcmag.com/5753/microsoft_gets_to_work_on_office_2009)

The creators of the online game Kingdom of Loathing avoid the number 13 in all of their programming.

The College of William and Mary claims 13 priorities, or achievements of the academic world, which they accomplished before any other university or college in the United States. For example, William and Mary was the first college in the US to establish an honor code. A marble plaque commemorating these 13 priorities hangs on the exterior wall of the Wren Building, the nation's oldest academic building still in



Inside of a Lufthansa plane with row numbers going straight from 12 to 14.

continuous use. Today, the Wren Building houses the college's Religious Studies department.

The Apollo 13 spacecraft malfunctioned on April 13th, forcing it to return to Earth without a landing on the moon and imperiling its crew.

Lucky 13

In Sikhism, the number 13 is considered a special number since 13 is *tera* in Punjabi, which also means "yours" (as in, "I am yours, O Lord"). The legend goes that when Guru Nanak Dev was taking stock of items as part of his employment with a village merchant, he counted from 1 to 13 (in Punjabi) as one does normally; and thereafter he would just repeat "tera", since all items were God's creation. The merchant confronted Guru Nanak about this, but found everything to be in order after the inventory was checked. April 13 also usually turns out to be Vaisakhi every year, which is the Sikh New Year and the major Sikh Holiday.

Several successful athletes have worn the number 13. Alex Rodriguez is said to be one of the most talented baseball players ever; he has also signed the biggest sports contract and wears the number 13. Dan Marino, an American football player known for passing more yards than any other quarterback in NFL history, wore the number 13, although pundits in the sport have often cited him as the greatest quarterback never to win an NFL championship. Basketball great Wilt Chamberlain wore the number 13 on his jersey throughout his NBA career. Also, FIBA rules require a player to wear the number in international competitions (only numbers from 4 to 15 could be worn, and as there are 12 players, one must wear 13); Chris Mullin, who wore #20 in college and #17 in the NBA, wore #13 for both (1984 and 1992) of his Olympic appearances. Shaquille O'Neal wore #13 in 1996, Tim Duncan wore #13 in 2004, Steve Nash is currently wearing it for the Phoenix Suns, and also Mats Sundin, wears 13 in the NHL. One of Iceland's all time best handball players, Sigurður Sveinsson, wore the number 13 when he played for the national team.

In Italy, 13 is also considered to be a lucky number.

In mythology

- The number of circles, or "nodes", that make up Metatron's Cube.
- The number of Norse gods (there were 12) at a banquet that was crashed by the evil spirit Loki (making 13) who killed one of the guests with a poison arrow.

Age 13

- For many Anglophones, it is at this point when a person officially becomes a teenager.
- In Jewish tradition a boy becomes bar mitzvah at age 13, when a ceremony is held and the boy reads from the Torah for the first time. Girls may also celebrate their bat mitzvah at age 13 in many Conservative and Reform Jewish congregations.
- Youngest a minor can watch a PG-13 rated movie by the MPAA without the recommendation of parental guidance or parental consent. Anyone can purchase, rent or buy tickets to a PG-13 rated movie.
- Youngest age a minor can rent or purchase a T rated game by the ESRB without parental consent

although anyone can rent or buy a T rated game without an adult.

- Minimum age a person can buy a 13+ rated movie in the Canadian province of Quebec without an adult 16 or older.

In sports

There are 13 players in a rugby league team. In rugby union one of the centres, most often but not always the outside centre, wears the 13 shirt

Basketball Hall of Famer Wilt Chamberlain wore number 13. Three NBA teams, plus the Harlem Globetrotters, have retired his number.

Pro Football Hall of Fame quarterback Dan Marino wore number 13 for the Miami Dolphins, who retired his number in 2000.

New York Jets wide receiver Don Maynard wore number 13 for the New York Jets, who retired his number in 1972.

In other fields

- The number of original colonies the United States was founded from. The original flag had thirteen stars, one for each state. New stars have since been added whenever a new state joins the union, but the idea of adding stripes for new states was soon dropped, so the American flag to this day has thirteen horizontal stripes: six white ones and seven red ones.
- In the Great Seal of the United States there are 13 olive leaves (with 13 olives), 13 arrows, and 13 stars. These form a triangle over the eagle with the number 13 on each point.
- The number of guns in a gun salute to U.S. Army, Air Force and Marine Corps Major Generals, and Navy and Coast Guard Rear Admirals Upper Half.
- The original number of members of The Thirteen Club.
- The number of loaves in a "baker's dozen"
- There are traditionally thirteen steps leading up to a gallows. It is, however, an urban myth that there are thirteen turns in a hangman's noose (there are most commonly eight turns.)
- Rondeau is a poem with 13 lines.
- Julius Caesar crossed the Rubicon with the 13th Legion, marking the beginning of Caesar's civil war and the eventual death of the Roman Republic.
- Trece is the Spanish word for thirteen; the number 13 is used to identify members of Sureños - chicano gang members in the U.S. that identify themselves with la Eme - the Mexican Mafia.
- Princess Diana died when her car hit the thirteenth pillar of a tunnel in Paris, on August 31, 1997.
- There is a Latin American gang named MS-13.

Historical years

A.D. 13, 13 B.C., 1913, 2013, 13th century (1201-1300), 1300s (14th century)

References

1. ^ Lachenmeyer, Nathaniel (2004). *13: The Story of the World's Most Popular Superstition*. Thunder's

Mouth Press. ISBN 1568583060. Reviewed by Michael Kerrigan, "One must die (http://www.powells.com/review/2005_03_20.html)".

2. ^ David Grossman. "Check your travel superstitions, or carry them on? (http://www.usatoday.com/travel/columnist/grossman/2005-10-31-grossman_x.htm)". USA Today, 31 October 2005.
3. ^ John H. Conway and Richard K. Guy, *The Book of Numbers*. New York: Copernicus (1996): 11. "Hotel floors are often numbered 1, 2, ... 12, 14, 15, ..."

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