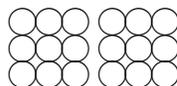


18 Eighteen XVIII



Corresponding ordinal: eighteenth.

The number 18 is the tenth even number and the tenth composite number.

As a product of primes: $18 = 2 \cdot 3^2$.

The number 18 has six divisors: 1, 2, 3, 6, 9, 18.

The number 18 is the second abundant number: $s(18) = 1 + 2 + 3 + 6 + 9 = 21 > 18$.

As the sum of four or fewer squares: $18 = 3^2 + 3^2 = 1^2 + 1^2 + 4^2 = 1^2 + 2^2 + 2^2 + 3^2$.

As the sum of nine or fewer cubes: $18 = 1^3 + 1^3 + 2^3 + 2^3$.

The number 18 appears in two Pythagorean triples: [18, 24, 30] and [18, 80, 82]. Neither is primitive because 18 is twice an odd number.

As a sum of two odd primes: $5 + 13$ and $7 + 11$.

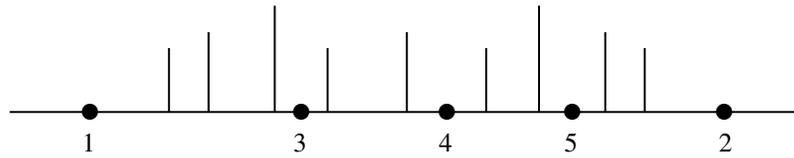
The number $18 = 31 - 13 = 97 - 79$ is the smallest positive difference between an emirp and its reverse. (Prime Curios and Number Gossip)

The number 18 is the only number, other than zero, that is equal to twice the sum of its digits. (Number Gossip and What's Special)

The number 18 is equal to the sum of the digits of each of the three numbers $18^3 = 5832$, and $18^6 = 34\,012\,224$, and $18^7 = 612\,220\,032$. (Penguin Dictionary)

The cube of 18 and the fourth power of 18 together use each digit exactly once: $18^3 = 5832$ and $18^4 = 104\,976$. (Penguin Dictionary)

The 18-point problem is to place a sequence of 18 points on an interval so that the first two points are in separate halves of the interval, the first three points are in separate thirds of the interval, the first four points are in separate fourths of the interval, and so on. Here is a picture of a sequence of five points:



In fact, a 1970 result of Berlekamp and Graham says that you can place up to 17 points that way, but not 18.

The eighteenth President of the United States was Ulysses Simpson Grant.

The eighteenth state to enter the Union was Louisiana.

The eighteenth largest state in the United States is North Dakota.

The age of 18 is the legal age to vote in the United States.

The age of 18 is the legal age to buy alcohol in many states.

The age of 18 is the minimum age for enlisting in military service without parental consent.

Most golf courses have 18 holes.

Gold in jewelry is often 18 parts pure gold and 6 parts other metals. This is called 18-karat gold—pure gold is 24-karat gold. So 18-karat gold is two-thirds pure gold.

The Hebrew word for “life” is

חי

The letter on the left is the tenth letter in the alphabet, the one on the right is the eighth letter in the alphabet, so the numerical value of the word is 18, which is therefore considered to be a lucky number.