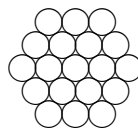


# 19 Nineteen XIX



Corresponding ordinal: nineteenth.

The number 19 is a centered hexagonal number as you can see.

The number 19 is the tenth odd number, the eighth prime number, and the sixteenth deficient number.

The prime 19 is in the fourth pair of twin primes 17, 19.

As the sum of four or fewer squares:  $19 = 1^2 + 3^2 + 3^2 = 1^2 + 1^2 + 1^2 + 4^2$ .

As the sum of nine or fewer cubes:  $19 = 1^3 + 1^3 + 1^3 + 2^3 + 2^3$ .

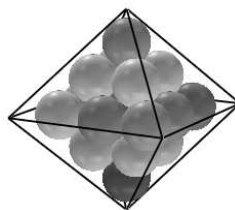
As the difference of two squares:  $19 = 10^2 - 9^2$ .

The number 19 appears in only one Pythagorean triple, [19, 180, 181], which is primitive, of course.

As a sum of three odd primes:  $3 + 3 + 13$ ,  $3 + 5 + 11$ , and  $5 + 5 + 7$ .

The number  $19 \times 91$  is equal to 1729, the smallest number that is the sum of two cubes in two different ways.

The number  $19 = 1 + 4 + 9 + 4 + 1$  is an octahedral number:



The number 19 is the last of the “teen” numbers.

The number 19 is the largest prime that is a palindrome in Roman numerals.

The number 19 is the smallest number  $n$  such that  $n^n$  is pandigital:  $19^{19} = 1978419655660313589123979$ . (Number Gossip)

The number 19 is the smallest prime that is equal to the difference of two cubes of

2 Chapter 19 Nineteen XIX

primes. (Number Gossip)

It was established in 1986 that every number is the sum of at most 19 fourth powers. The number 79 requires 19 fourth powers:  $79 = 15 \cdot 1^4 + 4 \cdot 2^4$ .

The nineteenth President of the United States was Rutherford Birchard Hayes.

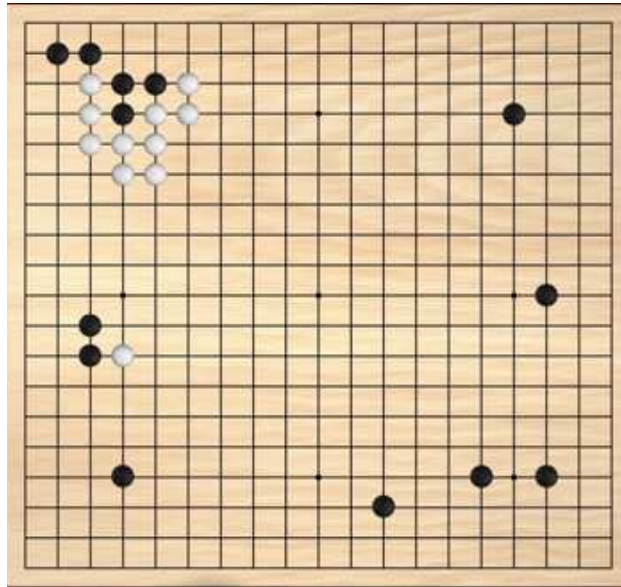
The nineteenth state to enter the Union was Indiana.

The nineteenth largest state in the United States is Washington.

The nineteenth amendment to the U.S. Constitution says that “The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of sex.”

The Hebrew calendar is based on a cycle of 19 years.

The game of Go is played on a 19-by-19 board.



The 19<sup>th</sup> card in the Major Arcana of the tarot deck is *The Sun*.