

50 Fifty L



Corresponding ordinal: fiftieth.

The number 50 is the twenty-sixth even number and the thirty-fourth composite number.

As a product of primes: $50 = 2 \cdot 5^2$.

The number 50 has six divisors: 1, 2, 5, 10, 25, 50.

The number 50 is the thirty-ninth deficient number: $s(50) = 1 + 2 + 5 + 10 + 25 = 43 < 50$.

As a sum of four or fewer squares: $50 = 1^2 + 7^2 = 5^2 + 5^2 = 1^2 + 2^2 + 3^2 + 6^2$. It is the smallest number that can be written as the sum of two nonzero squares in two different ways.

As a sum of nine or fewer cubes: $1^3 + 1^3 + 2^3 + 2^3 + 2^3 + 2^3 + 2^3 + 2^3 + 2^3$. The number 50 is the third of only 15 numbers that can be written as the sum of eight cubes, but no fewer; see **15**.

The number 50 appears in four Pythagorean triples: [14, 48, 50], [30, 40, 50], [50, 120, 130], [50, 624, 626]. None of these is primitive because 50 is twice an odd number.

As a sum of two odd primes: $3 + 47$, $7 + 43$, $13 + 37$, $19 + 31$.

The number 50 is one of three numbers n for which the number of primes up to $2n$ is equal to $n/2$. (Prime Curios) The other two are 48 and 60.

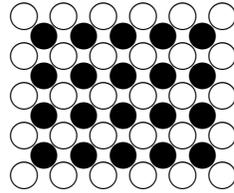
We can divide the primes less than $50/2$ into two groups so that the sum of each group is equal to 50. (modified from Prime Curios) How unusual is this? Mostly the problem is finding a number $2n$ that is equal to the sum of the primes less than $n/2$. The number 100 has this property. There aren't any others unless they are very large, but the prime number theorem might preclude that.

Four bits is 50 cents.

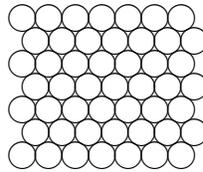
There are 50 states in the United States.

There are 50 stars on the American flag, one for each state. Five rows of 6 stars and four

rows of 5 stars. Isn't that a clever arrangement?



When there were 48 stars, they were arranged in six rows of 8. When there were 49, they were arranged in a staggered square 7-by-7 pattern, see below, but that didn't last long. Perhaps they were staggered to make them look better inside a blue rectangle whose height was 71% of its width.



At age 50, Millard Fillmore was inaugurated as President of the United States.

At age 50, Chester Alan Arthur was inaugurated as President of the United States.

The fiftieth state to enter the Union was Hawaii.

The fiftieth largest state (and hence the smallest state) in the United States is Rhode Island.

The U.S. 50-cent coin currently has a picture of John F. Kennedy, the thirty-fifth President of the United States. They have pretty much stopped making 50-cent coins.

The U.S. 50-dollar bill has a picture of Ulysses S. Grant, the eighteenth President of the United States.

Fifty percent is one-half: $50\% = 1/2$.

Pentecost comes from the Greek word meaning *fiftieth*. It is a feast day that falls on the fiftieth day after Easter.