## 51 Fifty-One LI



Corresponding ordinal: fifty-first.

The number 51 is the twenty-sixth odd number and the thirty-fifth composite number.

As a product of primes: $51=3 \cdot 17$.

The number 51 has four divisors: $1,3,17,51$.

The number 51 is the fortieth deficient number: $s(51)=1+3+17=21<51$.

As a sum of four or fewer squares: $51=1^{2}+1^{2}+7^{2}=1^{2}+5^{2}+5^{2}=1^{2}+3^{2}+4^{2}+5^{2}$.

As a sum of nine or fewer cubes: $51=3 \cdot 1^{3}+6 \cdot 2^{3}=3 \cdot 2^{3}+3^{3}$.

As differences of two squares: $51=10^{2}-7^{2}=26^{2}-25^{2}$.

The number 51 appears in five Pythagorean triples [24, 45, 51], [51, 68, 85], [51, 140, 149], [51, 432, 435], $[51,1300,1301]$. The third and the last are primitive.

As a sum of three odd primes: $51=3+5+43=3+7+41=3+11+37=$ $3+17+31=3+19+29=5+5+41=5+17+29=5+23+23=7+7+37=$ $7+13+31=11+11+29=11+17+23=13+19+19=17+17+17$.

The number 51 is a pentagonal number (see the figure above) and also a centered pentagonal number:


The number $51=6+7+8+9+10+11$ is a sum of consecutive integer.

There are 15 primes between 1 and 51 .
The number $51=2+3+5+41$ is a sum of primes using each of the digits from 1 to 5 exactly once.

At age 51, John Tyler was inaugurated as President of the United States.
At age 51, William Howard Taft was inaugurated as President of the United States.
At age 51, Calvin Coolidge was inaugurated as President of the United States.
At age 51, Franklin Delano Roosevelt was inaugurated as President of the United States.

