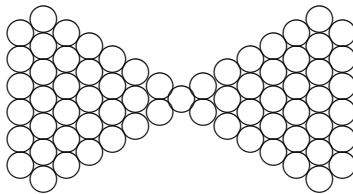


67 Sixty-Seven LXVII



Corresponding ordinal: sixty-seventh.

The number 67 is the thirty-fourth odd number, the nineteenth prime number, and the fifty-second deficient number.

As a sum of four or fewer squares: $67 = 3^2 + 3^2 + 7^2 = 1^2 + 1^2 + 1^2 + 8^2 = 1^2 + 1^2 + 4^2 + 7^2 = 1^2 + 4^2 + 5^2 + 5^2$.

As a sum of nine or fewer cubes: $67 = 3 \cdot 1^3 + 4^3 = 5 \cdot 1^3 + 2^3 + 2 \cdot 3^3$.

As a difference of two squares: $67 = 34^2 - 33^2$.

As a sum of three odd primes: $67 = 3 + 3 + 61 = 3 + 5 + 59 = 3 + 11 + 53 = 3 + 17 + 47 = 3 + 23 + 41 = 5 + 19 + 43 = 5 + 31 + 31 = 7 + 7 + 53 = 7 + 13 + 47 = 7 + 17 + 43 = 7 + 19 + 41 = 7 + 23 + 37 = 7 + 29 + 31 = 11 + 13 + 43 = 11 + 19 + 37 = 13 + 13 + 41 = 13 + 17 + 37 = 13 + 23 + 31 = 17 + 19 + 31 = 19 + 19 + 29$.

The number 67 appears in only one Pythagorean triple [67, 2244, 2245]. It is primitive, of course.

Mersenne claimed that $2^{67} - 1 = 193\,707\,721 \times 761\,838\,257\,287$ was prime.

The number $2^{67} = 147\,573\,952\,589\,676\,412\,928$ does not contain the digit zero.

The number 67 is the smallest prime which, when raised to the tenth power, contains all ten digits: $67^{10} = 1822\,837\,804\,551\,761\,449$. That is, 67^{10} is *pandigital*.

The number 67 is equal to $2^6 + 2^1 + 2^0 = 26 + 21 + 20$.

The square of 67 and the cube of 67 have no digits in common. They are 4489 and 300763.

The number 67 is the largest odd number that is not the sum of distinct squares. The largest number that is not the sum of distinct squares is 128, but it's even.

Alabama, Florida, and Pennsylvania each have 67 counties.

2 Chapter 67 Sixty-Seven LXVII

It is said that Hoto Matua, the first man to settle on Easter Island, brought 67 written tablets with him.