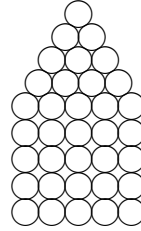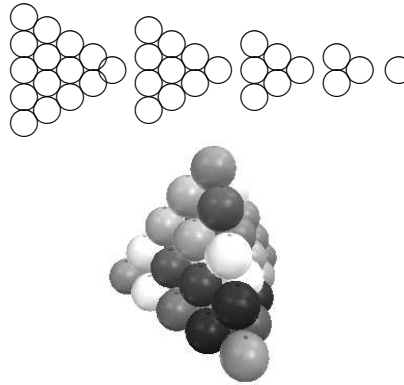# 35 Thirty-Five XXXV

Corresponding ordinal: thirty-fifth.

The number 35 is the sum of the first five triangular number: $1 + 3 + 6 + 10 + 15$. This makes it a *tetrahedral number* as you can see by stacking those five triangles.

The number 35 is the eighteenth odd number and the twenty-third composite number.

The number 35 is a pentagonal number, as you can see.

As a product of primes: $35 = 5 \cdot 7$.

The number 35 has four divisors: $1, 5, 7, 35$.

The number 35 is the twenty-eighth deficient number: $s(35) = 1 + 5 + 7 = 13 < 35$.

As a sum of four or fewer squares: $35 = 1^2 + 3^2 + 5^2 = 1^2 + 2 \cdot 3^2 + 4^2$.

As the sum of nine or fewer cubes: $35 = 2^3 + 3^3 = 3 \cdot 1^3 + 4 \cdot 2^3 = 8 \cdot 1^3 + 3^3$.

Note that 35 is the sum of the cubes of the first two primes. It is also the smallest number that can be written as the sum of nine or fewer cubes in three ways.

As a difference of two squares: $35 = 6^2 - 1^2 = 18^2 - 17^2$.

The number 35 appears in five Pythagorean triples $[12, 35, 37]$, $[21, 28, 35]$, $[35, 84, 91]$, $[35, 120, 125]$, $[35, 612, 613]$. The first and the last are primitive.

As a sum of three odd primes: $35 = 3 + 3 + 29 = 3 + 13 + 19 = 5 + 7 + 23 = 5 + 11 + 19 = 5 + 13 + 17 = 7 + 11 + 17 = 11 + 11 + 13$.

The number 35 can be written as a sum of odd primes in 35 different ways. In fact, 35 is the only number n that can be written in exactly n ways as the sum of odd primes.

There are 35 hexominoes. A *hexomino* is a figure made up of six squares joined at their edges. Here are two of them:
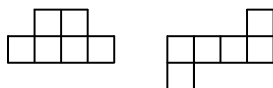
The thirty-fifth President of the United States was John Fitzgerald Kennedy.

The thirty-fifth state to enter the Union was West Virginia.

The thirty-fifth largest state in the United States is Virginia.

You have to be at least 35 years old to be President or Vice President of the United States.