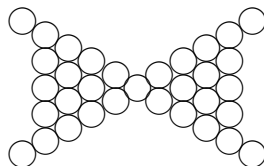


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Corresponding ordinal: thirty-third.

The number 33 is the seventeenth odd number and the twenty-first composite number.

As a product of primes: $33 = 3 \cdot 11$.

The number 33 has four divisors: 1, 3, 11, 33.

The number 33 is the twenty-sixth deficient number: $s(33) = 1 + 3 + 11 = 15 < 33$.

As a sum of four or fewer squares: $33 = 1^2 + 4^2 + 4^2 = 2^2 + 2^2 + 5^2 = 2^2 + 2^2 + 3^2 + 4^2$.

As the sum of nine or fewer cubes: $33 = 6 \cdot 1^3 + 3^3 = 1^3 + 4 \cdot 2^3$.

As a difference of two squares: $33 = 7^2 - 4^2 = 17^2 - 16^2$.

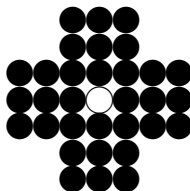
The number 33 appears in four Pythagorean triples [33, 44, 55], [33, 56, 65], [33, 180, 183], [33, 544, 545]. The second and the fourth are primitive.

As a sum of three odd primes: $33 = 3 + 7 + 23 = 3 + 11 + 19 = 3 + 13 + 17 = 5 + 5 + 23 = 5 + 7 + 19 = 5 + 11 + 17 = 7 + 13 + 13 = 11 + 11 + 11$.

The number 33 is equal to $1! + 2! + 3! + 4!$.

The number 33 is the largest number that is not the sum of distinct triangular numbers. The others are 2, 5, 8, 12, and 23.

The English version of peg solitaire is played on a board with 33 holes and 32 pegs:



You remove pegs one by one by jumping over them horizontally or vertically. As in checkers, you can combine jumps into a single move. The last peg must be left in the

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center hole. The game can be won with 18 combined moves. Play it on the web at mazeworks.com/peggy/index.htm or at coolmath-games.com/0-pegsolitaire/index.html.

The number 33 was the number of Kareem Abdul-Jabbar and Larry Bird.

The number 33 appears prominently on bottles of Rolling Rock beer.

The number 33 is the highest degree in freemasonry.

The thirty-third President of the United States was Harry S. Truman.

The thirty-third state to enter the Union was Oregon.

The thirty-third largest state in the United States is Pennsylvania.