

Number Theory Trivia: Questions, Answers, and Facts Printable Trivia Pack

Number Theory trivia explores the integers, prime numbers, divisibility, and surprising patterns that have fascinated mathematicians since antiquity, from Euclid to modern cryptography. This page offers a concise, family-friendly way to test what you know, whether you enjoy light number puzzles, odd mathematical facts, or more challenging questions about a foundational branch of mathematics.

HARD NUMBER THEORY TRIVIA

1. In what year did Bernhard Riemann publish the paper that introduced his prime-counting ideas?

Answer: 1859

2. Which year marks David Hilbert's presentation of his famous list of problems, including ones connected to number theory?

Answer: 1900

3. Name the mathematician who proved the incompleteness theorems in 1931.?

Answer: Kurt Gödel

4. What major international mathematics prize did John Tate win in 2010?

Answer: Abel Prize

5. Which mathematician won the Abel Prize in 2003?

Answer: Pierre Serre

6. Who was awarded the Fields Medal in 2014 and is listed here as a notable modern figure in number theory?

Answer: Manjul Bhargava

7. Whose influence on modern algebraic geometry is singled out as deeply important for tools used in number theory?

Answer: Alexander Grothendieck

8. Which mathematician's algebraic ideas became fundamental to modern number theory?

Answer: Emmy Noether

9. Which prolific collaborator is identified with many problems in combinatorial and analytic number theory?

Answer: Paul Erdős

10. Which university is named as an important institutional home for modern work in number theory?

Answer: Columbia University

11. Which institution in Japan is noted for significant research activity in arithmetic geometry and number theory?

Answer: Kyoto University

12. Which city is noted for a long university tradition linked to algebraic number theory?

Answer: Heidelberg

13. The Riemann hypothesis is about the zeros of what function?

Answer: the zeta function

14. In what year was Disquisitiones Arithmeticae published?

Answer: 1801

FUNNY NUMBER THEORY TRIVIA

1. Which number can honestly say, "I'm even," despite bringing absolutely no quantity to the party?

Answer: 0

2. What three-digit number is divisible by 3, as if all those 1s decided to cooperate?

Answer: 111

3. Which number is just 11 squared wearing a tidy little disguise?

Answer: 121

4. Which number is divisible by 2, 3, and 6, basically overachieving in three categories at once?

Answer: 222

5. What number equals 7 cubed, like a lucky number getting promoted to the third dimension?

Answer: 343

6. Which number is exactly 10 to the third power, with zeros doing most of the visual heavy lifting?

Answer: 1000

7. Which number reads the same forward and backward, making it the numerical equivalent of a mirror selfie?

Answer: 10001

8. What palindrome looks like it hired a 2 to stand proudly in the middle?

Answer: 12321

9. In the multiplication 37^3 , what number pops out like a very repetitive jackpot?

Answer: 111

10. Which square number is produced by 33^2 , with perfect symmetry and no drama?

Answer: 1089

11. The repeating decimal 0.142857... belongs to which fraction, patiently looping forever?

Answer: 1/7

12. Which six-digit number is identified here as a cyclic number in base 10, basically spinning its digits like a DJ?

Answer: 142857

13. Which number shows up with exactly six zeros, as if it brought an entourage made entirely of nothing?

Answer: 1000000

FUN NUMBER THEORY TRIVIA

1. Which Fibonacci number is also a prime, giving it a double life in two famous number families?

Answer: 13

2. What number manages to be both a Fibonacci number and a perfect square?

Answer: 144

3. Which number is an Armstrong number because $1^3 + 5^3 + 3^3$ equals the number itself?

Answer: 153

4. What is the smallest number that can be written as a sum of two cubes in two different ways?

Answer: 1729

5. Which pair of cube sums equals 1729?

Answer: $1^3 + 12^3$ and $9^3 + 10^3$

6. If 1729 were bragging at a party, what special claim could it make?

Answer: It is the smallest number expressible as the sum of two cubes in two different ways.

7. Which number is the smallest Carmichael number?

Answer: 561

8. What divisor sneaks into the Fermat number $2^{32} + 1$?

Answer: 641

9. Which of these is a Fermat prime?

Answer: 65537

10. When 6 and 8 try to share nicely, what least common multiple do they agree on?

Answer: 24

11. What is the value of $7!$, the factorial that grows from 7 all the way down to 1?

Answer: 5040

12. In base 2, how is the decimal number 10 written?

Answer: 1010

13. Which number on this list is a Fibonacci number: 92, 93, 94, or 95?

Answer: 93

NUMBER THEORY FAMILY TRIVIA

1. Which three single-digit numbers in this set are all prime numbers?

Answer: 3, 5, and 7

2. Which number is composite because it can be written as 3^2 ?

Answer: 9

3. What number has exactly four positive divisors: 1, 2, 5, and itself?

Answer: 10

4. Which number is divisible by both 3 and 4?

Answer: 12

5. If you multiply 3 by 5, which number do you get?

Answer: 15

6. Which number has the factor pair 3 and 7?

Answer: 21

7. What number is the square of the prime number 5?

Answer: 25

8. Which number equals 3 to the third power, or 3^3 ?

Answer: 27

9. Which number is a Mersenne prime because it equals $2^5 - 1$?

Answer: 31

10. What are the smallest pair of amicable numbers?

Answer: 220 and 284

11. Which number factors as $7 \times 11 \times 13$?

Answer: 1001

12. Which number is a palindromic prime?

Answer: 101

EASY NUMBER THEORY TRIVIA

1. What do you call a number with exactly two positive divisors, 1 and itself?

Answer: A prime number

2. A number with more than two positive divisors is called what?

Answer: A composite number

3. What is the smallest prime number?

Answer: 2

4. Which number is neither prime nor composite?

Answer: 1

5. What is the term for a number that equals the sum of its proper positive divisors?

Answer: A perfect number

6. What is the smallest perfect number?

Answer: 6

7. What do you call a number that reads the same forward and backward?

Answer: A palindromic number

8. Which of these is a palindromic number?

Answer: 11

9. A Mersenne prime has which general form?

Answer: $2^p - 1$ for some prime p

10. A Fermat number is written in what form?

Answer: $2^{(2^n)} + 1$

11. The Sophie Germain prime is named after which mathematician?

Answer: Sophie Germain

12. Who proved that there are infinitely many prime numbers?

Answer: Euclid

13. What theorem describes how primes are distributed among large integers?

Answer: The prime number theorem

Source: <https://triviagong.com/themes/number-theory>