

History of Mathematics Test
Mu Alpha Theta National Convention 2026

1. Who is credited with this sequence? 1,1,2,3,5,8,13,...

- a. Euler b. Euclid c. Gauss d. Fibonacci e. NOTA

2. In Israel, the traditional plus sign as we know it is not used due to its resemblance of a cross. The Israeli education system instead uses a symbol that closely resembles what capital letter when written upside down?

- a. A b. F c. J d. T e. NOTA

3. If you alphabetize the following mathematicians using their FIRST names, rather than their LAST names (as shown below), which one would be first?

Einstein, Fermat, Germain, Lovelace

- a. Einstein b. Fermat c. Germain d. Lovelace

4. Elected in 2025, Pope Leo XIV holds a Bachelor of Science degree in mathematics which he earned in 1977 from which University?

- a. Villanova b. Rutgers c. Vanderbilt d. Columbia e. NOTA

5. Who authored *Conics*, a treatise of 8 books? Notable content in these books is the first mention of naming parabolas, ellipses and hyperbolas.

- a. Diocles b. Apollonius of Perga c. Nicomedes d. Erathostenes e. NOTA

6. Although they lived during different time periods, which of these men was the oldest at the time of his death?

- a. Guillaume de l'Hospital b. Johannes Kepler c. Srinivasa Ramanujan d. David Hilbert

7. The Fields Medal is a prize awarded every four years to two, three or four mathematicians. In 2022 there were four recipients of the award. Of the four, who received it due to work in the field of probability?

- a. Hugo Duminil-Copin b. June E Huh c. James Alexander Maynard d. Maryna Sergiivna Viazovska

8. A 13-sided tile that can fully cover an infinite plane was discovered in 2023. This tile's pattern never repeats, making it an example of a long-sought shape known as an "einstein." What is this tile being called?

- a. The bear b. The hat c. The chair d. The rose e. NOTA

9. In an attempt to reconcile theory on Distant Parallelism, two handwritten letters were sent from Albert Einstein to Herbert Salzar after Salzar initially wrote to Einstein. Both of Einstein's letters were postmarked in the same month of 1938. What month was that?

- a. June b. July c. August d. September e. NOTA

10. Which of these mathematicians is known as having a nomadic lifestyle? He lived out of suitcases, had no real home, no family, and very few possessions.

- a. John von Neumann b. G. H. Hardy c. Paul Erdos d. David Mayne e. NOTA

11. Founded in 1951, Texas Instruments is a well-known company to mathletes for creating amazing calculators. Who was the first president of Texas Instruments?

- a. Patrick Haggerty b. Mark Shepherd c. Cecil Green d. John Jonsson e. NOTA

12. Which of these Roman Numerals has the greatest value?

- a. V b. X c. D d. L

13. Urbain Le Verrier is credited with using mathematics to discover which planet?

- a. Neptune b. Uranus c. Saturn d. Jupiter e. NOTA

14. This number is the atomic number of Boron, a number in the Fibonacci Sequence and odd.

- a. 3 b. 13 c. 87 d. 89 e. NOTA

15. Which of the following was NOT a recipient of a MacArthur Fellowship?

- a. George Oster b. Philip Treisman c. Isreal Gelfand d. Allan Kieffer e. NOTA

16. The Chinese are known to be the first to use negative numbers. To what context did they associate negative numbers?

- a. debt b. low temperatures c. sea exploration d. direction e. NOTA

17. You are likely familiar with several types of logic puzzles. There is one type in particular, created by Albert Einstein (although sometimes Lewis Carroll is also mentioned as the author) known as Zebra Puzzles. The very first publication of a Zebra Puzzle gave various clues with the ultimate question of “Who owns the Zebra?” This first publication (without unveiling the solution), was published in Life International in what year?

- a. 1960 b. 1962 c. 1964 d. 1966 e. NOTA

18. There are many techniques to find the area of a triangle. One of these uses the triangle’s semi-perimeter and the length of each side. _____ was named after the 1st century Greek mathematician who proved it in Book 1 of *Metrica*.

- a. Clairaut’s Equation b. Heron’s Formula c. John’s Equation d. Euler’s Identity e. NOTA

19. Although many believe that Euler was the first to use it, the symbol we know today as the representation of the ratio of a circle’s circumference to its diameter was first used in a publication in 1706. This was a year *before* Euler’s birth! Therefore, William Jones, who used the symbol in his second book, *A New Introduction to Mathematics*, is deserving of the credit for using what symbol for pi?

- a. β b. μ c. π d. φ e. NOTA

20. Find the sum of the following:

1. The number of problems in *Arithmetica* written by Diophantus
2. The number of versus in *Aryabhatiya* written by Aryabhata
3. The number of problems in the Moscow Mathematical Papyrus

- a. 63 b. 94 c. 154 d. 188 e. NOTA

21. Terence Tao is one of the most accomplished mathematicians of our time. His list of awards and recognitions is quite impressive, and he has collaborated with many other mathematicians to make noteworthy advancements in mathematics. One of his collaborations won him (and his collaborator) the Ostrowski Prize in 2005. Who was his collaborator?

- a. Allen Knutson b. Ben Green c. Emmanuel Candes d. Tamar Ziegler e. NOTA

22. _____ in Mathmagic Land is a Walt Disney short first released in 1957.

- a. Mickey b. Minnie c. Donald d. Goofy e. NOTA

23. The Salamis tablet, discovered in the late 1800s is considered to be a precursor to the abacus. It is made of what material?

- a. granite b. marble c. clay d. quartzite e. NOTA

24. There are four major Shulba Sutras. These are a part of a larger collection (the Shrauta Sutras) written by Indian mathematicians during the Vedic period. The four major texts are known to be the ones that contain the most mathematics. Within these texts, details are found regarding the construction and purpose of various fire-altars. It was the construction design of these fire-altars that required the math that was found in these texts. What form should the fire altar be built in if its purpose is to destroy present and future enemies?

- a. falcon b. tortoise c. triangle d. rhombus e. NOTA

25. How many years separate the year that Mu Alpha Theta was founded and the year of its first national convention?

- a. 7 b. 9 c. 11 d. 13 e. NOTA

26. Who wrote *A Brief History of Time* which was first published in 1988?

- a. Stephen Hawking b. Albert Einstein c. John Nash d. Andrew Wiles e. NOTA

27. Considered to be beautiful and aesthetically pleasing, what is the name for the ratio, first mentioned in Euclid's *Elements*, that is often approximated to be 1.618? It is also called the divine proportion.

- a. silver ratio b. golden ratio c. rainbow ratio d. earthly ratio e. NOTA

28. Early Babylonians developed a way to tell time with the sexagesimal number system. The choice of this base is likely because of its many divisors. What base does the sexagesimal number system use?

- a. 2 b. 10 c. 12 d. 60 e. NOTA

29. $\sqrt{2}$ is known as whose constant?

- a. Pythagoras b. Euler c. Archimedes d. Chaitin e. NOTA

30. It's the last question! Let's have some fun!

What word is spelled when this puzzle is done?

The first letter of a shape with 3 sides

The letter missing from the great EINSTE?N

The Roman numeral for 500 is ?

A duel claimed the life of poor EV?RISTE

This is fun, don't you agree?

Let's wrap this up and set sail with OGI?VY.

- a. TIGER b. TILER c. TIDAL d. TIDES e. NOTA