



Louisiana Mu Alpha Theta

affiliated with
Mu Alpha Theta
National High School and Junior College
Honorary Mathematics Club

50th State Convention March 25-27, 2010 Baton Rouge, Louisiana

Open - History of Math

TEST RULES

1. Do not begin test until you are told to do so.
2. You must supply your own #2 pencil.
3. Only ACT approved calculators are allowed on all tests.
4. Print your name and school in the name blank, your code in the date blank, and the area test in the subject blank on your Scantron answer sheet
5. Standard procedure for machine graded papers must be followed. Use only a #2 pencil, marking the appropriate spaces carefully.
6. In case of a tie, winners will be determined according to the order in which the answer sheet was turned into the moderator.
7. Do all scratch work on your test.

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History of Mathematics – Area Test

(NOTA stands for “none of the above”)

1. She used examples such as bridge and dice games in her probability class at Vassar University to show the role mathematics played in real life.
a. Jean van Heijemoort b. Grace Murray Hopper c. Tracy Yerkes Thomas d. Ruth Moufang e. NOTA
2. He introduced the notion of “logical consequence” which provided a logic closer to mathematical reasoning the systems proposed by Frege, Russell, and Hilbert.
a. Nicolas Bourbaki b. Abraham Gelbart c. Albert Einstein d. Gerhard Gentzen e. NOTA
3. He worked in mathematical logic with particular interest in the theory of formal systems and processes.
a. Haskell Brooks Curry b. Philip Hall c. Alonzo Church d. Abraham Wald e. NOTA
4. He solved one of Hilbert’s 23 theoretical problems and collaborated on developing an algebraic ring with profound applications in quantum physics.
a. Einstein b. von Neumann c. Hilbert d. Euclid e. NOTA
5. He was an English mathematician whose major was on group theory, notably on finite groups and solvable groups.
a. Samuel Wilks b. Abraham Wald c. Philip Hall d. Alonzo Church e. NOTA
6. A Chicago native, his doctoral dissertation was entitled “Algebras and their Radicals and Division Algebras.”
a. Abraham Adrian Albert b. Abraham Wald c. Wolfgang Pauli d. Wolfgang Krull e. NOTA
7. A leading American mathematician in the fields of number theory and algebra, he taught Abraham Adrian Albert in Chicago.
a. Aurel Wintner b. Laszlo Kalmar c. Albert Einstein d. L.E. Dickson e. NOTA
8. Triskaidekaphobia is the fear of what?
a. irrational numbers b. the number 13 c. square roots d. complex #s e. NOTA
9. He did his doctoral work in orthogonal systems of functions and later studied partial differential equations.
a. Paul Levy b. Alfred Haar c. Julio Rey Pastor d. George Feigl e. NOTA

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10. In 1914 he proved a famous theorem about the error term in the prime number theorem. He also developed a new specific link between trigonometric series and analytical functions.
- a. John E. Littlewood b. Simion Stoilow c. Paul Levy d. Angelo Tonolo e. NOTA
11. He lost an arm as a child. He also wrote a short paper on the functional equation of the gamma function.
- a. Jesse Douglas b. Emil Leon Post c. Octav Mayer d. Norbert Wiener e. NOTA
12. He was awarded a doctorate in 1910 for a dissertation on the calculus of variations. His daughter also earned a Ph.D. in mathematics.
- a. Johann Radon b. Simion Stoilow c. Albert Einstein d. Euclid e. NOTA
13. In 1917, he submitted his thesis on boundary value problems for linear differential equations.
- a. Euler b. Richard Courant c. Jacob David Tamarkin d. Louis Joel Mordell e. NOTA
14. His thesis dealt with the development of all analytic functions in a given domain in terms of a fixed set of orthogonal functions.
- a. Emil Leon Post b. Jesse Douglas c. Stefan Bergman d. Tibor Rado e. NOTA
15. Worked with Landau on analytic number theory and binary quadratic forms. Wrote a thesis on modular elliptic functions.
- a. Gaston Julia b. Paul Isaac Bernays c. Norbert Wiener d. Octav Mayer e. NOTA
16. Graduated from Harvard and wrote a theory which was the study of ordinary and partial differential equations from a global or topological point of view.
- a. Jerzy Neyman b. Pierre Humbert c. Tibor Rado d. Harold Maiston Morse e. NOTA
17. He wrote on the applications of the symbolic calculus to mathematical physics.
- a. Jerzy Neyman b. Pierre Humbert c. Tibor Rado d. Harold Maiston Morse e. NOTA
18. Considered to be a pioneer of statistical mathematics and probability.
- a. Jerzy Neyman b. Pierre Humbert c. Tibor Rado d. Harold Maiston Morse e. NOTA

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19. He wrote approximately 20 pages within 5 years of starting his formal mathematical education – the first was “On the Roots of Algebraic Equations” (1921).
a. Jerzy Neyman b. Pierre Humbert c. Tibor Rado d. Harold Maiston Morse e. NOTA
20. He wrote his thesis on applying the methods of the theory of quadratic number fields to quadratic extensions of a field of rational functions of one variable taken over a finite prime field of constants.
a. Emil Artin b. Jesse Douglas c. Octav Mayer d. Emil Leon Post e. NOTA

Some Oldies, but Goodies:

21. Known as the father of modern geometry.
a. Pythagoras b. Euler c. Socrates d. Euclid e. NOTA
22. He introduced the symbol $i = \sqrt{-1}$.
a. Euler b. Gauss c. Eratosthenes d. Newton e. NOTA
23. Who invented logarithms?
a. Napier b. Euler c. Newton d. Logger e. NOTA
24. Who first came up with the idea of a programmable computer in 1856?
a. Steve Jobs b. Bill Gates c. Charles Babbage d. John Napier e. NOTA
25. The first calculator was a
a. slide rule b. abacus c. straight edge and compass d. TI-30 e. NOTA