

1. The Egyptians used the lotus flower to represent which number?

- a. 100
- b. 1,000
- c. 1,000,000
- d. 1,000,000,000
- e. NOTA

2. In 1897, Edwin J. Goodwin proposed a bill in which state's general assembly in an attempt to dictate that 3.2 be accepted and used as the value of pi?

- a. Indiana
- b. Georgia
- c. Maryland
- d. Vermont
- e. NOTA

3. Invented in the 19th century, a _____ Board, intended to form a binomial distribution, uses a series of pegs, which causes an inserted ball to bounce either left or right as it falls to each peg.

- a. Tukey
- b. Bernum
- c. Galton
- d. Bayes
- e. NOTA

4. Which mathematician is known for his phrase, "I think, therefore I am."?

- a. Descartes
- b. Euler
- c. Eratosthenes
- d. Fermat
- e. NOTA

5. John Napier is known for his Napier's _____ which can be used for lattice multiplication.

- a. Rocks
- b. Bones
- c. Cards
- d. Knives
- e. NOTA

6. Which of the following pairs of mathematicians were alive during the same time period?

- a. Marin Mersenne and Rene Descartes
- b. Arthur Cayley and Paul Erdos
- c. Blaise Pascal and Leonhard Euler
- d. Thales and Plato
- e. NOTA

7. Sophie Germain lived during a time when it was frowned upon for females to learn. Because of this, she used a pen name in order to share her discoveries in mathematics. What was the pen name that she used?

- a. Monsieur Baudin
- b. Monsieur Mercier
- c. Monsieur Paquet
- d. Monsieur LeBlanc
- e. NOTA

8. In 1902 a British mathematician developed the following paradox. "Is the set A of all sets that are not elements of themselves an element of itself?" The paradox has been popularized as The Barber's Paradox and is as follows: "The town barber shaves all males who do not shave themselves, and he shaves only those males. The town barber is a male who shaves. Who shaves the barber?" Who was this British mathematician?

- a. Bertrand Russell
- b. Alan Turing
- c. James Mercer
- d. Arthur Cayley
- e. NOTA

9. Created in 2004 by a Japanese mathematics teacher named Tetsuya Miyamoto, these square puzzles involve cages and target numbers requiring simple arithmetic to complete.

- a. Sudoku
- b. Hanjie
- c. Oekaki-Mate
- d. KenKen
- e. NOTA

10. In ancient Greece, the citizens of Athens created a procedure that allowed them to vote for the expulsion of any prominent person. The person with the most number of votes, above a set minimum, was exiled from Athens for a period of ten years. Voters inscribed the name of the person they wanted exiled on a piece of broken pottery. These pottery fragments used in the voting process became known as _____.

- a. ostrakons
- b. christos
- c. poimnes
- c. alphas
- e. NOTA

11. Named so for a man who dedicated time to calculating it to over 30 decimal places, the Ludolphian Number references which of the following?

- a. π
- b. e
- c. $\sqrt{2}$
- d. The Golden Ratio
- e. NOTA

12. Developed by Daniel Gabriel Fahrenheit, the first mercury thermometer with a standardized scale was invented in what year?

- a. 1698
- b. 1714
- c. 1602
- d. 1593
- e. NOTA

13. Al-Khwarizmi is commonly referred to as the "Father of Algebra". However, there is an earlier mathematician who is also given this same title. Who was he?

- a. Eratosthenes
- b. Ptolemy
- c. Euclid
- d. Aristotle
- e. NOTA

14. In the 2000 movie *Cast Away* starring Tom Hanks, the main character estimates that a rescue team will need to search for him over a circular region with a radius of approximately 400 miles. He then reasons that this would be an area twice the size of _____.

- a. Alaska
- b. Texas
- c. Mexico
- d. Australia
- e. NOTA

15. Euclid's famous treatise *Elements* consists of how many books?

- a. 10
- b. 15
- c. 20
- d. 11
- e. NOTA

16. Although Andrew Wiles is credited with proving Fermat's Last Theorem, in the late stages of his work on the proof he sought out additional help from _____, who had been a student of Wiles.

- a. John Nash
- b. Paul Cohen
- c. Richard Taylor
- d. Joseph Levio
- e. NOTA

17. In 1903 at an American Mathematical Society presentation, this man factored $2^{67} - 1$. He received first standing ovation ever given at one of these presentations.

- a. Frank Nelson Cole
- b. Pierre Fatou
- c. Bertrand Russell
- d. John Venn
- e. NOTA

18. Although the Nobel Prize is awarded each year in several different categories, mathematics is not one of them. In 1936 the first ever _____ was given to Lars Valerian Ahlfors and Jesse Douglas to acknowledge their achievements in mathematics.

- a. Abel Prize
- b. Fields Medal
- c. Wolf Prize in Mathematics
- d. Chern Medal
- e. NOTA

19. The Rhind papyrus contains 85 problems which have helped mathematicians understand early Egyptian mathematics. Where does the majority of the Rhind papyrus currently reside?

- a. France
- b. Egypt
- c. England
- d. United States
- e. NOTA

20. Which theorem was proven in 1976 by Wolfgang Haken and Kenneth Appel?
- a. Pick's Theorem
 - b. Four-Color Theorem
 - c. Friendship Theorem
 - d. Binomial Theorem
 - e. NOTA
21. John W. Tukey invented ____.
- a. Venn diagrams
 - b. frequency tables
 - c. histograms
 - d. box plots
 - e. NOTA
22. About five years before taking office, which United States President developed a paper and scissors proof of The Pythagorean Theorem?
- a. James Garfield
 - b. Dwight Eisenhower
 - c. William Taft
 - d. Herbert Hoover
 - e. NOTA
23. In 1693, ____ published one of the first tables that attempted to relate mortality and age in a population.
- a. Yuji Hyakutake
 - b. Alan Hale
 - c. Edmond Halley
 - d. Horace Tuttle
 - e. NOTA
24. In the book *Flatland*, written by Edwin Abbott, ____ are represented by line segments.
- a. children
 - b. priests
 - c. animals
 - d. women
 - e. NOTA
25. The popular Monty Hall Problem was originally popularized by Monty Hall, who was the host of which television game show?
- a. Deal or No Deal
 - b. The Price is Right
 - c. Let's Make a Deal
 - d. Press Your Luck
 - e. NOTA
26. Who is credited with saying that compound interest is the eighth wonder of the world?
- a. Alan Turing
 - b. John Venn
 - c. John Nash
 - d. Albert Einstein
 - e. NOTA

27. The formula for calculating the volume of a frustum of a square pyramid was found on the ____.

- a. Prisse Papyrus
- b. Berlin Papyrus
- c. Westcar Papyrus
- d. Moscow Papyrus
- e. NOTA

28. The Mayans counted in which base?

- a. 16
- b. 10
- c. 20
- d. 5
- e. NOTA

29. In any triangle, the orthocenter, circumcenter and centroid are collinear on a line called ____.

- a. Fermat Line
- b. Euler Line
- c. Euclid Line
- d. Lagadha Line
- e. NOTA

30. There is a popular story of young boy who had a lazy teacher. This teacher asked the students to add up the integers from 1 to 100, hoping to keep them busy for a long time. Surprisingly, one student had the correct answer of 5050 quite quickly. Who was this young student?

- a. Euler
- b. Fermat
- c. Einstein
- d. Gauss
- e. NOTA