1. He said: “There is no problem that cannot be solved”
   A. Francois Viete  B. Leonardo da Vinci  C. Girolamo Cardano  D. Nicolo Tartaglia  E. NOTA

2. All of the following are considered Renaissance artists, **except**
   A. Leonardo da Vinci  B. Michelangelo  C. Apollonius  D. Benvenuto Cellini  E. NOTA

3. Born in Denmark in 1546, he is perhaps best known for his theory of the solar system. This theory is based on a stationary Earth around which the Moon and Sun revolve, with the other planets revolving around the Sun.
   A. Piero Borgi  B. Tycho Brahe  C. Nicolo Tartaglia  D. Nicolas Chuquet  E. NOTA

   A. Ludovico Sforza  B. Piero Borgi  C. Nicolo Tartaglia  D. Luca Pacioli  E. NOTA

5. A very important Renaissance painter, he published the first treatise on perspective called *On Perspective for Painting*.
   A. Piero della Francesca  B. Leonardo da Vinci  C. Nicholas of Cusa  D. Paolo Veronese  E. NOTA

6. He proved $2^{19} - 1$ to be the largest known prime, remaining as such for 200 years until Euler proved that $2^{31} - 1$ is prime.
   A. Angelo Mazzocco  B. Girolamo Cardano  C. Pietro Cataldi  D. Scipione del Ferro  E. NOTA

7. He published *Introduction to the Analytical Art* in 1591 with the aim of restoring the algebraic relationships hidden behind the geometrical representations of the Greeks. His notion of using letters systematically to represent unknown quantities and coefficients is considered his greatest contribution to algebraic theory.
   A. Adriaan Van Roomin  B. Francois Viete  C. Nicolas Chuquet  D. Nicholas de Cusa  E. NOTA

8. He was a physician and an unpleasant man, but he did write *Ars Magna* in which he gave methods of solving cubic and quartic equations.
   A. Luca Pacioli  B. Francois Viete  C. Christoff Rudolff  D. Fibonacci  E. NOTA.

9. Besides being a superb painter, Leonardo da Vinci did work in all of the following areas **except**
   A. mechanics  B. anatomy  C. optics  D. hydrodynamics  E. NOTA

10. Born in Germany in 1401, ordained a priest and later a bishop, Nicholas de Cusa worked in all of the following, **except**
    A. astronomy  B. calendar reform  C. concept of infinity  D. Euclidian solids  E. NOTA
11. He became known as a mathematics and astronomy prodigy at an early age and actually earned a Master’s Degree by the age of 16. His book *De Triangulis Omnimodis* is a systematic account of methods of solving triangles. In 1472 he made observations of a comet accurate enough to allow it to be identified as Halley’s comet 210 years later.

   A. Johann Muller (Regiomontanus)  
   B. Georg Pearbach  
   C. Nicholas Chuquet  
   D. Johann Windham  
   E. NOTA

12. Of the following, the earliest printed arithmetic is

   A. *Suma*  
   B. Treviso’s *Arithmetic*  
   C. Widman’s *Arithmetic*  
   D. Riese’s *Arithmetic*  
   E. NOTA

13. Robert Recorde, a British mathematician, was also a physician to Edward VI and Queen Mary. He wrote all of the following, except

   A. *The Ground of Artes*  
   B. *The Pathwai to Knowledge*  
   C. *The Whetstone of Witte*  
   D. *Physiks*  
   E. NOTA

14. This German mathematician introduced the symbol $\sqrt{\phantom{1}}$ in his book of algebra *Die Coss*

   A. Michael Stefel  
   B. Christoff Rudolff  
   C. Simon Stevin  
   D. Lucas Watzenrode  
   E. NOTA

15. This Dutch mathematician wrote books on interest tables, on geometric construction and introduced decimals to Europe. He wrote on astronomy and defended the sun-centered teachings of Copernicus and works in fortifications, position finding and music theory.

   A. Mauritz of Orange  
   B. Adriaan Van Roomin  
   C. Simon Stevin  
   D. Vander Hoecke  
   E. NOTA

16. He originally set forth his views in a hand-written book called *The Little Commentary*, where his seven axioms are explained. His definitive and revolutionary work became the book *De Revolutionibus Orbium Coelestium*.

   A. Johann Kepler  
   B. Georg Rheticus  
   C. Edmund Halley  
   D. Nicolaus Copernicus  
   E. NOTA

17. His famous engraving *Melancholia* shows a fourth-order magic square with the date it was made in the two middle cells of the bottom row.

   A. Albrecht Durer  
   B. Leonardo da Vinci  
   C. Piero della Francesca  
   D. Paolo Varonese  
   NOTA

18. The mystic pseudo-science of substituting the number values for the letters in a name is called

   A. algebra  
   B. *gematria*  
   C. etymology  
   D. denumeration  
   E. NOTA

19. His *Arithmetic*, published in 1489, is the earliest in which the + and - symbols have been found.

   A. Francois Viete  
   B. Scipione del Ferro  
   C. John Widmann  
   D. Georg Rheticus  
   E. NOTA
20. His *Canon Mathematicus Seu ad Triangula cum Appendicibus* gives the first systematic elaboration in the Occident of the methods of computing plane and spherical triangles by the aid of the six trigonometric functions.

A. Nicolo Tartaglia  
B. Girolamo Cardano  
C. Luca Pacioli  
D. Francois Viete  
E. NOTA

21. He published in 1522 the first work on conics, which appeared in modern Europe. He studied the sections in relation with the cone and derived properties directly from it.

A. Johannes Werner  
B. Michael Stelfel  
C. Christoff Rudolff  
D. Franciscus Maurolycus  
E. NOTA

22. This great geometrician showed that a ship sailing so as to make equal angles with the meridians does not travel in a straight line, nor does it travel along the arc of a great circle, but describes a path called the loxodromic curve. This led him to invent the nonius or vernier as described in his *De Crepusculis* in 1542.

A. Peter Ramus  
B. Ludolph Van Ceule  
C. Pedro Nunes  
D. Girolamo Cardano  
E. NOTA

23. The calendar reform gave rise to the new Gregorian calendar to rectify the Julian calendar. The new calendar was proposed by this mathematician.

A. Adrianus Romanus  
B. Luca Pacioli  
C. Franciscus Maurolycus  
D. Christoforus Clavius  
E. NOTA

24. Adam Riese’s *Arithmetic*, published in 1522, had such a great impact in German mathematics that to this day the phrase *nach Adam Riese* indicates

A. a correct solution  
B. a positive integral solution  
C. a positive solution  
D. an integral solution  
E. NOTA

25. Georg Rheticus worked with Copernicus for three years and in 1540 published *Narratio Prima*, a short account of Copernican astronomy. The number 1540 is all of the following, except

A. a triangular number  
B. a tetrahedral number  
C. an even number  
D. a Kaprekar number  
E. NOTA

26. This Flemish geographer, who for a time was associated with the court of Charles V in Brussels, broke with Ptolemy’s geography as Copernicus revolted against Ptolemy’s astronomy. In 1569 he published his first map *Nova et Aucta Orbis Terrae Descriptio*. With some improvements his projection has been basic in cartology ever since.

A. Tycho Brahe  
B. Gerard Mercator  
C. Johann Kepler  
D. Georg Pearbach  
E. NOTA

27. He used the formula for $\sin (n\theta)$ to solve the problem posed by Adrianus Romanus in the latter’s *Ideae Mathematicae* by breaking the problem into a fifth degree equation and two third degree equations.

A. Francois Viete  
B. Georg Mohr  
C. Nicolas Chuquet  
D. Luca Pacioli  
E. NOTA
28. Perhaps the most significant Renaissance development in motivating mathematics of the next two centuries was the revolution in astronomy led by Copernicus and this man, whose life was plagued by all sorts of difficulties. His most enduring contributions were his three laws of planetary motion.

A. Tycho Brahe  B. Michael Mastlin  C. Johann Kepler  D. Rafael Bombelli  E. NOTA

29. His obsession with $\pi$ led him to determine it to 35 places and the numbers were placed on his tombstone (now lost) in Leyden. In Germany, $\pi$ is sometimes referred to in his honor as

A. Fibonacci’s number  B. Metius’ number  C. Huygen’s number  D. Lambert’s number  E. NOTA

30. He wrote *Triparty en la Science des Nombres* in 1488, the earliest French algebra book, but it was not published until 1880. It contains work with negative numbers used as coefficients, exponents, and solutions in addition to work with quadratic equations.

A. Francois Viete  B. Valentine Otho  C. Maurice Frechet  D. Nicolas Chuquet  E. NOTA