COMPILATION OF FEMALE MATHEMATICIANS

Maria Gaetana "the Witch of" Agnesi (1718- 1799)
- She published the first book that dealt with integral and differential calculus. Was appointed chair at the Bologna Academy of Sciences. She was a deeply religious woman and born into a wealthy family.
- An Italian mathematician. She also studied linguistics and philosophy. She published books n calculus and differential equations. In 1750, she later became chair of the mathematics an natural philosophy departments at the Bologna Academy of Sciences.
- Italian mathematician, linguist, and philosopher. In 1750, Maria was appointed as chair of mathematics and natural philosophy at the Bologna Academy of Sciences. Spent the end of her life tending to the less fortunate in a nunnery.
- She is referred as the first important woman mathematician since Hypatia. She was recognized for writing the first book on differential and integral calculus. She was the first woman appointed as a professor at the University of Bologna. (18th Century)
- A woman of many skills, Agnesi was an Italian mathematician, linguist, and philosopher whose profound intelligence was evident from an early age. Born into a wealthy and large family (due in part to siblings which sprang from her father's two subsequent marriages after Maria's mother passed away), Agnesi was a devoted and studious woman who would go onto publish the first book that dealt with both integral and differential calculus. In 1750, Maria was appointed as chair of mathematics and natural philosophy at the Bologna Academy of Sciences, an incredible accomplishment for any woman in the mid eighteenth century, when exceptionally few universities in Europe allowed women to study, let alone hold teaching positions. Later in life, Agnesi, a deeply religious woman, joined a nunnery and ended her days tending to the less fortunate.

Hertha Marks Ayrton (1854 - 1923) She was an English engineer, inventor and mathematician who was the first female member of the Institution of Electrical Engineers. She invented a draftsman's device useful for dividing a line into equal parts and reducing and enlarging figures. She also solved many mathematical problems which were published in the Educational Times.

Clara Latimer Bacon lived the United States from 1866 to 1948. She taught at several different universities in from Chicago to Baltimore. After teaching for years, she went back and eventually got her Ph.D. In 1911 she was the first women ever to receive a Ph.D.

Nina Bari - a Soviet mathematician known for her work on trigonometric series (Fourier series). She was killed by a train in the Moscow Metro, and her colleagues speculated that she committed suicide, prompted by the death of her mentor Nikolai Luzin ten years earlier, a man who may have been her lover. **(20th century)**

Lida Barrett was born in Houston Texas in 1927. She received her doctorate from the University of Pennsylvania in 1954. She has taught at several colleges in her lifetime usually following her husband from college to college.

Suzan Benedict was born in Ohio in 1873 and died in 1942. She graduated with her B.A. with a major in chemistry and a minor in mathematics physics and German. She received her Ph.D. from the University of Michigan in 1914, where she was the first women to receive a doctorate from there.

Dorothy Lewis Bernstein lived in the United States from 1914 to 1988. She was the first women President of the Mathematical Association of America in 1979. She graduated with her Ph.D. in mathematics from Brown University in 1939.

Lenore Blum (1942 -   )

- She moved to South America when she was nine then traveled back to America once her family could afford to attend college. She attained a doctoral degree in 1968 for a thesis titled Generalized Algebraic Structures: A Model Theoretical Approach. From there she stated to research at UCSB then got hired at Mills College and became the head of the Math and Science department. She dedicated her life to outreach programs to get girls into math and science.
- She graduated high school at the age of sixteen, but was turned down the first several attempts she applied to MIT. Her field of specialty is generalized algebraic theories, and she was a member of the Association for Women in Mathematics.

Kathrin Bringmann - a number theorist at the University of Cologne, Germany and the University of Minnesota, USA who has made fundamental contributions to the theory of mock theta functions. She has also been awarded the SASTRA Ramanujan Prize in 2009 for her contributions to "areas of mathematics influenced by the genius Srinivasa Ramanujan. **(20th century)**

Marjorie Lee Browne (1914 - 1979) She was one of the first black female mathematicians to receive a doctorate honor for mathematics in 1949 in the United States. She was a notable mathematics educator and was the head of department of North Carolina Central University from 1951 - 1970. She has immensely contributed her work in the field of linear and matrix algebra. Her work also showcased simple evidences of topological properties significance and relations between classical groups.

Anneli Cahn (1922-1999)

- A German born mathematician leaves Germany and moves to New York to do graduate work during her graduate work she meets Perter Lax (a mathematician) and they get married. He gets his PhD first then she gets hers in 1955 (Thesis title: On Cauchy's Problem for Partial Differential Equations with Multiple Characteristics). She became an important figure in publishing mathematical writings, a professor and a teacher as her husband's research overlapped hers.

Dame Mary Lucy Cartwright (1900-98)

- She published over 100 papers focusing on function theory. She was the first female to be elected as a Fellow of the Royal Society of England. Cartwright's theorem is named for her.
- She focused on function theory. She published over 100 papers and was the first female mathematician that was selected to be a part of the Royal Society of England. Also, she is known for her Cartwright Theorem.
- She graduated from Oxford in 1923. She has studied under and worked with reknown mathematicians such as G. H. Hardy, E. C. Titchmarsh, and John Littlewood. Cartwright is known for her work in analytic function theory. She has published a number of papers.
- An accomplished British mathematician, Cartwright led a long and distinguished career that focused on function theory. In her lifetime, Mary published in excess of 100 papers and was the first female mathematician to be elected as a Fellow of the Royal Society of England; a theorem regarding analytical function that she put forth, Cartwright's theorem, shares her name. Cartwright received numerous awards and recognitions throughout her life including, the De Morgan Medal of the London Mathematical Society and the Sylvester Medal of the Royal Society.

Gabrielle Émilie le Tonnelier de Breteuil, marquise du Châtelet (1706 –1749)-

- A member of French high society, that was able to receive a degree of education. She studied physics, philosophy, and mathematics. She has also translated Newton's *Principia Mathematica.*

- Lived during the early 18th century. She was a mathematician as well as a physicist. She was tutored by de Maupertuis, a student of Johann Bernoulli and a contemporary of Euler. She considered her translation and annotation of Newton's *Principia Mathematica* her greatest achievement; it is still the standard French translation.
- A woman of many intellectual interests, Émilie was a mathematician, author, and physicist who hailed from France. Born into a well-to-do family, Châtelet was a gifted child with a natural penchant for linguistics. Given her family's high social status, Émilie was able to receive a degree of education far above the vast majority of French women at the time. Her place in society also put her in a position wherein she was able to mingle with some of the leading minds of her time (such as Voltarie, who would go onto become one of her lovers). In 1740, Châtelet published a book entitled *Institutions de Physique*, which put forth some of her knowledge regarding both science and philosophy. In her last year of life, Émilie translated Newton's well-known *Principia Mathematica*. In her early forties she became pregnant, and though she initially survived the pregnancy, a few days later both she and her newborn child passed away. Émilie was an independent, articulate and highly intelligent woman, who was somehow able to hold down both her role as a leading lady in French high society and as a mathematician, an equation which deserves respect in its own right.

Fan Chung was born in Kaohsiung in 1949.
- She is a well known mathematician who works mainly in the areas of spectral graph theory, extreme graph theory and random graphs. She is currently a professor at the University of California San Diego. Thus far in her career she has published two hundred papers and three books.
- Chinese mathematician that did work on spectral graph theory, extremal graph theory, and random graphs. Specialty was in generalizing Erdos-Renyi model for graphs.

Susan Cunningham - She studied astronomy and mathematics at Vassar College as a special student during 1866-67. In 1869 she helped to begin the astronomy and mathematics departments for the opening of Swarthmore College. In 1891 Cunningham was elected a member of the New York Mathematical Society (later to become the American Mathematical Society), one of the first six women to join this organization. **(19th century)**

Florence Nightingale David (1909-1993)
- Fun fact died in Contra Costa County, CA in a place called Kingston which in about 30 minutes from where I (AL) live. She was a statistician in training and published some 100 papers in statistics. She became a fellow of the American Statistical Association in 1954 among other groups that she became a member of in statistics.
- Her parents were friends with the original Nightingale, statistician, went to Bedford College, worked in the military during WWII as an advisor on Land Mines, held a chair at both Berkeley and UC Riverside, wrote nine books and one hundred papers.
- 20th century statistician. Named after the above, whom her parents knew. Also a statistician, published a book on probability.
- She calculated the distribution of correlation coefficients, producing in 1938 her first book, *Tables of the correlation coefficient*.

Ingrid Daubechies (1954-): physicist, worked at AT&T Bell Laboratories, wavelet theory, professor at Princeton, MacArthur Fellow, first woman to receive the National Academy of Sciences Award in Mathematics

Karin Erdmann (1948-present) - German specializing in representation theory, notably modular representation theory, and homological algebra.

Etta Zuber Falconer 1933-2002
- African American mathematician who received her mastes from the University of Wisconsin but didn't pursue doctoral work because she felt unconformable. She received her PhD from Emory University in 1969 in the area of algebra (Thesis title: Quasi group Identities Invariant under Isotopy). She goes on to become a professor at Spellman College and becomes department chair.

Sarah Flannery: Born in 1982. Published the Cayley-Purser algorithm, a public-key encription algorithm started by Michael Purser, using matrices instead of exponentials.

Irene Fonseca (Portuguese, 1956-)
- Research has centered on continuum mechanics, calculus of variations, geometric measure theory and partial differential equations. She is part of several boards of major universities and research centers and has published many papers and co-authored the book *Degree Theory in Analysis and Applications.*

Sophie Germain (1776-1831)
- Self-taught mathematician in Number Theory and Differential Geometry. She wrote to Lagrange and Gauss as a man (Mr. LeBlanc) so that they would read her work. Almost received an honorary degree.
- 18th century French mathematician. Initially opposed by her parents, she convinced them of her dedication and communicated with other mathematicians of her day, such as Legendre and Gauss.
- Parisian born she studied number theory and differential geometry. In 1816, she won a contest that was held by the French Academy of Science which dealt with the area of vibrations on elastic surfaces, that in turn lead her to become the first woman to attend classes at the Academy. In 1831, the University of Gottengen bestowed an honorary degree to Germain.
- She learned about mathematics from the books in her father's library. She contributed to the area of number theory and differential geometry. Her work with Fermat's Last Theorem provided a stepping-stone for future mathematicians. ($18^{th} - 19^{th}$ Century)
- Parisian born Germain was a passionate mathematician with a love of number theory and differential geometry. During her lifetime (which, in the context of both France and Europe in general, was a highly tumultuous era) Germain often corresponded under a pseudonym (Monsieur Le Blanc) as a means of hiding her gender when writing to leading male mathematicians of the time such as Lagrange and Gauss. In 1816 Sophie won a contest that was held by the French Academy of Science which dealt with the area of vibrations on elastic surfaces, that in turn lead her to become the first woman (short of some of the staffs' wives) to attend classes at the Academy. In 1831, the University of Gottengen bestowed an honorary degree to Germain, however she died as a result of breast cancer before she was able to receive the degree. A self-taught mathematician who came of age during a truly unstable period in French history, Sophie will long be remembered for her mathematical contributions in the field of number theory.

Shafi Goldwasser (born 1958)
- A native of New York, Goldwasser is both a professor of mathematics (at the Weizmann Institute of Science) and of computer science (at MIT, where she was the first person to hold an RSA Professorship). Shafi's research focuses on areas such as cryptography, complexity theory and computation number theory, and she is well-known for her work with zero-knowledge proofs. For her work in the field of complexity theory, Goldwasser was awarded the Gödel Prize in theoretical computer science twice (1993 and 2001, respectively).

- Was twice the winner of the Gödel Prize for theoretical computer science. She teaches both at MIT and the Weizmann Institute of Science. She focuses on cryptography, complexity theory and computation number theory.

Evelyn Boyd Granville (1924-   )
- Child of the great depression she managed to overcome diversity and fiscal hardship that would have barred her from college (he aunt and mother helped pay her way though). She received her BA from Smith college, her doctorate from Yale in functional analysis (Thesis title: On Laguerre Series in the Complex Domain) in 1949 becoming one of the first African American females to receive her doctorate in mathematics.

Christine Hamill (1923-1956) – English mathematician specializing in group theory and finite geometry.

Gloria Hewitt (US, 1935-)
- Was the fourth African-American woman to receive a doctorate in mathematics. She formed part of the question-writing committee of the GRE and was Chair of the Mathematics Department at the University of Montana.

Grace Hopper (1906-1992)
- From early childhood she had a fascination with machines and later in life received a masters from Yale in mathematics. During WWII she wanted to join the war effort but was considered too old and too small so she got onto navy and became a lieutenant and worked on the Mark I, Mark II, and Mark III computers being the second to program Mark I and the first to discover a computer bug in mark II. From there she went to develop computer languages and became importation in the field winning many medals and honors.
- Was a mathematician and computer scientist active during the twentieth century. She was a Rear Admiral in the US Navy, serving from World War II until the mid-80s. She was one of the first programmers of the Harvard Mark I and designed the COBOL programming language.

Hypatia of Alexandria (AD 350 to 370 – 415)
- Greek female mathematician who worked with Theon Alexandricus, another mathematician. She is the inventor of the hydrometer. She was killed by a gang of Christians.
- Was best known for her work on "conic sections" of Apollonius. Her work was expanded by Newton, Leibniz and Descartes.
- Was a fourth century Greek mathematician, philosopher, and astronomer. She lived in Egypt and was the head of the Platonist school in Alexandria. She wrote commentaries on and edited works by Diophantus, Ptolemy, and Euclid. She was immortalized in Raphael's "School of Athens" along with Ptolemy, Leonardo, Pythagoras, and either Euclid or Archimedes.
- First well-known female mathematician, lived in Alexandria, Egypt, taught by her father Theon who was also a famous mathematician, also studied astronomy, worked on the idea of conic sections and edited a book about it, killed by a Christian mob. (There is a movie about her called *Agora* that looks like it might be good).
- Considered the first female mathematician. Also an astronomer.
- Was a teacher, and the inventor of the hydrometer. She forged ahead in a time when women ignored in mathematics. Died when her chariot was attacked and she was brutally murdered by a gang of Christians.
- She is a Greek academic from Alexandria, Egypt. She seems to be recognized as the first woman in mathematics. She also taught philosophy and astronomy. (Ancient)

- Born nearly 17 centuries ago, Hypatia of Alexandria was a brazen, highly intelligent woman who excelled in the fields of science, math and philosophy, which at the time (and for hundreds upon hundreds of years further) were seen squarely as the domain of men. Hypatia's foremost teacher was her father, Theon Alexandricus, a mathematician and philosopher, who she would later go on to contribute to several mathematical works with. Hypatia herself was a teacher, as well as being the inventor of the hydrometer. Though she forged ahead in a time when women were all but ignored in the realm of mathematics, this bright Greek woman eventually met with a tragic death when her chariot was attacked and she was brutally murdered by a gang of Christians. Though her life was cut short, while she was alive, through her accomplishments, Hypatia was able lay the groundwork for future female pioneers of mathematics.

Carol Karp (1926-1972)
- Little is known about her early childhood but she worked on her doctoral thesis at University of Southern California where she was a logician (Thesis title: Languages with expressions of infinite length). She got married moved to Japan because her husband was in the Navy. Upon return she took a teaching post at the University of Maryland which she held to her death in 1972. She liked algebraic logic.
- American mathematician of Dutch ancestry. Best known for her work on infinitary logic.

Sharad Keny: Professor of Mathematics at Whittier College. She got her B.S. from University of Bombay in India, and her PHD from UCLA. Her area of focus is Algebra.

Nancy Kopell (1942-): went to Cornell and Berkeley, MacArthur fellow, Co-Director of the Center for BioDynamics, applied dynamical systems theory in biology and engineering

Sofia Vasilyevna Kovalevskaya (1850-91)
- First well-known Russian female mathematician. She taught herself advanced mathematics as a teenager. She won the Prix Bordin.
- Was a Russian mathematician and an advocate for women's rights. During her teenage years, she began to introduce herself to higher mathematics. Because women young, single women were not allowed to travel alone and determined to study, Kovalevskaya married in order to pursue her academic goals.
- Originally self-taught, married in order to be allowed to go to university in Switzerland, studied under Karl Weierstrass at the University of Berlin, after a long time of unemployment due to her gender, she found a position at the University of Stockholm, worked in analysis, differential equations and mechanics.
- She is recognized to be the first major Russian female mathematician. Her work centered on differential equations and analysis. She was also the first woman who was given a full professorship in Northern Europe. (19th Century)
- Generally acknowledged as the first well-known Russian female mathematician, Kovalevskaya (portrayed above) began teaching herself advanced mathematics as a young teen, before going on to leave Russia so that she could attend university in mainland Europe (something that women were not allowed to do in Russia at the time). A very bright, quite and gentle person, Sofia loved to learn and was eager to share this passion with others by teaching math, though this proved to be very challenging for a woman in nineteenth century Russian and Kovalevskaya would again have to leave her homeland so as to take up a position lecturing at the University of Stockholm. Prior to her relatively young passing due to pneumonia, Kovalevskaya published numerous papers on topics pertaining to

mathematics and mathematical physics, and won a prestigious award (the Prix Bordin) from the French Academy of Sciences. ([Here](#) you can find a mathematical book about her work.)

Cecilia Krieger - an Austro-Hungarian (more specifically, Galician)-born mathematician of Jewish ancestry. Krieger was the third person (and first woman) to earn a Ph.D in mathematics from a university in Canada, in 1930. Krieger is well known for having translated two works of Sierpinski in general topology. **(20th century)**

Augusta <u>Ada</u> Byron King, Countess of <u>Lovelace</u> (December 10, 1815 – November 27, 1852): English born Ada was the daughter of famed poet Lord Byron, though he was not active in his daughter's life. Aside from her famous father, Ada is primarily known for her programming work regarding Charles Babbage's invention of the analytical engine, a very early mechanical general-purpose computer. Lovelace was ahead of her time in this field, as she believed that computers held the capacity to do more than just simply act as calculators. Like many of the women in this list, Ada met with an early death; she was only 36 when she died due to uterine cancer. Today Lovelace is remembered fondly as the first female computer programmer (in era before the modern computer came into existence), and the programming language Ada was named in her honor.

Emma Lehmer (1906-2007)
- Born in Russia and discovered her love for mathematics so she moved to the United States to do her University studies and she paid her way though doing odd jobs like tutoring in math and piano (she was good at it). She got a master's degree from Brown University with a thesis titled *A Numerical Function Applied to Cyclotomy* and her and her husband (Derrick "D.H." Lehmer has a Ph.D. in math) met famous mathematicians like Hardy, Littlewood, Davenport, Mahler, Mordell and Erdős on their trip to England in 1940. She ends up publishing over 60 articles and of those 20 with her husband and since she didn't have to teach she had a lot of time. She was a number theorist of sense and did some work on Fermat's last theorem.

Ada Isabel Maddison (1869 - 1950) British mathematician best known for her work on differential equations.

Jessie MacWilliams (1917- 1990).
- She was interested in coding theory. Her PhD thesis contains one of the most powerful theorems in coding theory. She is known for her MacWilliams equations.

Danica McKellar is an actress and mathematician famous for her portrayal of Winnie Cooper in the TV Series *The Wonder Years*. She is also author of a few books designed to encourage young girls to get involved in mathematics. She graduated summa cum laude from UCLA with a degree in mathematics and has an Erdös number of four. She is the McKellar in the Chayes–McKellar–Winn theorem.

Evelyn Merle Nelson (1943-1987)
- Canadian mathematician that worked on universal algebra with applications to theoretical computer science. Named for the Krieger-Nelson Prize, Canadian Mathematical Society for outstanding research by female mathematician.
- Nelson made contributions to the area of universal algebra with applications to theoretical computer science.

Florence Nightingale (1820-1910):
- Statistician, statistical analysis during war, "polar-area diagram", used statistics as a way to measure and analysis social data and use that as a way to support reform in those areas (military, hospitals).

- 19th century nurse, also a statistician. Championed the idea that soldiers were dying of poor conditions in field hospitals. Represented statistics graphically with polar area diagrams.

Amalie Emmy Noether (1882-1935)
- Einstein thought she was one of the most important women in the history of mathematics. She was a university professor and writer. She was barred from teaching for being Jewish in Germany during the Nazi reign.
- She was known for her ability to grasp abstract thoughts. She was a Jew during Nazi Germany and was unable to continue being a professor. She escaped and continued to teach in America at Bryn Mawr.
- Comes from a family of mathematicians, her brother also pursued mathematics and her father was a notably mathematicians of his time. Denied for being a woman, Noether audited mathematics class at the University of Erlangen, where her father was a mathematics professor. At the University of Gottingen, a small group of the faculty invited Noether to the math department, although the majority of the faculty did not want to welcome a woman. She then got an unpaid position lecturing.
- German known for abstract algebra and theoretical physics. Hilbert and Einstein said most important women in the history of math. In physics there is a theorem named after her, Noether Theorem.
- Theoretical physicists and abstract algebraist. Towards the end of 1933, Noether was able to escape Germany and take up a position at the American college of Bryn Mawr.
- An influential German mathematician known for her groundbreaking contributions to abstract algebra and theoretical physics.
- Considered by Einstein to be most important woman in history of mathematics, Emmy (as she generally went by) was an early twentieth century German mathematician with a passion for such areas as theoretical physics and abstract algebra. Noether was both an accomplished university professor and a prolific writer of mathematical papers, as well as someone with a profound ability to grasp abstract thought. As the Nazi stronghold grew in Germany during the 1930s, Emmy found herself, like so many other Jewish professors, barred from teaching. Towards the end of 1933, Noether was able to escape Germany and take up a position at the American college of Bryn Mawr. However, sadly, two years later Emmy's life was cut short when she died just days after undergoing surgery. To this day Noether's many contributions towards mathematics and theoretical physics are highly revered, and many remain relevant to the math of the twenty-first century.

Olga Arsenievna Oleinik (July 2, 1925– October 13, 2001) was a Soviet mathematician who conducted pioneering work on the theory of partial differential equations.

Rózsa Péter (17 February 1905–16 February 1977) was a Hungarian mathematician. She is best known for her work with recursion theory.

Vera Pless (1931-present) – American who specializes in combinatorics and coding theory. Co-authored several articles with John H Conway, she has Erdos number of 2.

Cheryl Praeger (1948-present) - Australian who is best known for group theory, algebraic graph theory, and combinatorial designs.

Virginia Ragsdale (December 13, 1870 - June 4, 1945) was a teacher and a mathematician specializing in number theory. She is most known as the creator of the Ragsdale conjecture.

Constance Reid is the sister of Julia Robinson, the famous mathematician. She wrote biographies about mathematicians, i.e. David Hilbert and Richard Courant. She was never really a mathematics person, but with time, she started to understand it more.

Bernadette Perrin-Riou (1955-   )
- A French mathematician who got her doctoral degree in 1983 from "Arithmetic of elliptic curves and Iwasawa theory]. This thesis, which proves an algebraic analogue of the p-adic Birch and Swinnerton-Dyer conjecture, was published in 1984." (O'Connor and Robertson). She gained recognition in the States and I can't decipher much more from all the French.

Julia Bowman Robinson (1919-85)
- She is famous for her work on Hilbert's tenth problem. She was the first female elected to the National Academy of Sciences. She was also the first female president of the American Mathematical Society.
- Lived most of her life in California and is best known for helping solve Hilbert's Tenth Problem. In 1975 she became the first woman elected to the US Academy of Sciences and in 1976 she became a full professor at Berkeley. Her subspecialty was in decision problems. She also worked on the presidential campaign of Adlai Stevenson in 1952 and 1956.
- Studied at Berkeley under Tarski, logic, game theory, and number theory, Hilbert's tenth problem, president of the American mathematical society, professor at Berkelely, won the MacArthur Fellowship.
- She attended UC Berkeley and was a student of Alfred Tarski. She later became a professor at the college. She is best known for her work on Hilbert's Tenth Problem. (20th Century)
- An American mathematician who was born in St. Louis, Robinson is known for her work regarding Hilbert's tenth problem and the field of decision problems. Though plagued by health problems for most of her life, Julia didn't let this stand in the way of her love of math and the pursuit of knowledge. She taught as a professor at Berkley and was the first female mathematician to be elected to the National Academy of Sciences. An historical first in her career included becoming president of the American Mathematical Society. She would also go on to become elected to the American Academy of Arts and Sciences in the mid 1980s, just a few short years before she passed away from leukemia.

Elizabeth Scott (1917-1988)
- She attended UC Berkeley because it was close and cheap in the era of the Great Depression. She received her PhD from Berkeley with a thesis in two parts: Part I was on Contribution to the problem of Selective Identifiability of spectroscopic Binaries, and Part II was on Note on Consistent Estimates of the Linear Structural Relation Between Two Variables. Scott went on to make major contributions in statistics and published over 100 papers.

Mary Fairfax Sommerville (1780- 1872).
- She is known as the "Queen of 19th Century Science." Solved math problems she found in journals and submitted the solutions, which she won medals for. Was a member of the Royal Astronomical Society.
- Mary Fairfax Sommerville was born in Scotland on 26 December 1780 and became a popular and influential writer on science and mathematics when interest in the subjects among the general public was high. Her first book *"Mechanisms of the Heavens'* a translation and popularized account of Laplace's' Celestial Mechanics, became a widely-used textbook for students of higher mathematics and astronomy. Other major works were *'Connection of the Physical Sciences'* , *'Physical Geography'* and *'Molecular and Microscopic Science'*. The last of these was published when Somerville was 89. She also wrote monographs on mathematical subjects. Recognition of her work came in the form of a pension

from the King of England and she was one of the first women elected to membership of the Royal Astronomical Society. She died in Naples in Italy on 28 November 1872.

Bhama Srivanasa (Indian, 1935-)
- Has centered her research around Group Theory. In 2007 she gave a presentation on Modular Representations at the American Institute of Mathematics. She has been a faculty member of the University of Illinois, Chicago since 1980.

Alicia Boole Stott (Ireland, 1860-1940)
- Had no formal training but was gifted in geometric visualization in hyperspace. She is credited as being the first person to enumerate and describe all 45 semiregular polytopes and collaborated with Peiter Schoute of the University of Groningen and HSM Coxeter on different pubications.
- English - mathematician - She translated Platonic and Archimedean solids into higher dimensions, taking years at a time away from her career to be a homemaker.

Theano – (Ancient-6th century B.C.)
- the wife of Pythagoras. She wrote treatises on mathematics, physics, medicine, and child psychology. She and her two daughters carried on the Pythagorean School after the death of Pythagoras.
- Wife of Pythagoras, and took over his school with their daughters after Pythagoras' death.

Audrey Terras (1942-present) - American who works with number theory, focusing on quantum chaos and different types of zeta functions. At UC San Diego.

Ulrike Tillmann (1962-present) - German mathematician specializing in algebraic topology with significant contributions to moduli space of algebraic curves.

Karen Uhlenbeck (1942-): global analysis and gauge theory, physics and differential equations, taught at MIT and Berkeley, MacArthur Fellow

Argelia Velez-Rodriguez (Cuban, 1936-)
- Was the first Afro-Cuban woman to receive a doctorate in mathematics from the University of Havana. Her dissertation was entitled "Determination of Orbits Using Talcott's Method".

Anna Johnson Pell Wheeler (1883 - 1966) She was a famous American mathematician known for her contribution on linear algebra in infinite dimension, which became a part of functional analysis later on. She received a Ph.D in 1909 on her dissertation, *Biorthogonal Systems of Functions with Applications to the Theory of Integral Equations*.

Melanie Wood is a mathematician working in number theory and algebraic geometry during the twenty-first century. When she was sixteen, she became the first female American to make the International Math Olympiad Team. She is now, at twenty nine years old, an Assistant Professor at Stanford University.

Dorothy Maud Wrinch (Argentinean-British, 1884-1976)
- Earned First Degree in the Mathematical Tripos of 1916. By 1929 she had published 42 papers on a wide range of subjects from pure mathematics to mathematical physics and philosophy of science. Later in her career she focused primarily on natural sciences.